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REFLECTION AND RECEPTION:

The Origins of the Mirror in Bronze Age China

by

Diane M. O'Donoghue

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Introduction

The casting of mirrors represents one of China's most enduring traditions. The practice, originating in the Bronze Age, continued throughout dynastic history. The Chinese favored the circular mirror without a handle; a raised central boss, threaded to allow the object to be suspended or held in the hand, was the preferred means of support. The face bearing the loop attachment was frequently cast with imagery, while the reverse side was polished and functioned as the reflector. While styles of surface ornament and dimensions varied over time, the basic structure of the Chinese mirror remained essentially unchanged throughout its long history.

Adhering to a singular prescription in its typology, the Chinese mirror manifested considerably more diversity in its function. By definition, a mirror serves as a reflective surface. However, as this study will explore, there are significant distinctions among the possible uses accorded this object. In addition to service as cosmetic accouterment, mirrors were valued for ritual purposes associated with the power of reflection. From the Han period onward, inscriptions were frequently cast on the mirror surface; this epigraphic evidence provides invaluable assistance in positioning these objects within their cultural context.¹ For the pre-Han epoch, which will be the period under examination in this analysis, the archaeological record provides the most comprehensive source of information concerning the production and use of the bronze mirror.

I. The Chinese Mirror: Traditions of Scholarship

The earliest surviving evidence of scholarly interest in the Chinese mirror dates from the final years of the Northern Song period. In about 1100, Emperor Huizong commissioned a group of scholars, under the editorial direction of Wang Fu (d. 1126), to document the imperial collection of antiquities. The resulting catalogue, entitled *Xuanhe bogu tulu* (frequently cited as *Bogutu*), contained illustrations and descriptions of nearly nine hundred objects, of which just over one hundred were mirrors. Each example was rendered in a line drawing, following the practice used to illustrate the ritual vessels and other material included in the collation. The annotations that accompanied the illustrated mirrors varied in length; most of the examples bore inscriptions, which were transcribed and, in some cases, discussed in relation to classical texts. Dimensions and a brief description of surface ornament were included within each entry.

While the mirrors were designated as either Han or Tang in date, the compilers of the *Bogutu* displayed little concern for either chronological or stylistic issues. The objective of the Song catalogue, as K. C. Chang has observed, "was not to create a new branch of learning based on the study of ancient artifacts as an independent body of historical data."² The physical properties of the mirror were not regarded as its defining feature; it was the inscription that distinguished the object and situated it within the continuum of the classical tradition. In a manner paralleling Song interest in stone engravings and ritual vessels, the mirror was valued for its historiographic rather than art historical significance. As components of a broader societal construct, antiquities served to validate both the past and the present. Wu Hung, in discussing the interpretation of Han period material by means of Song methodology, has noted that "a specific object, as an integral piece of a historical totality, thereby extends one's ability to recognize the totality."³ This perspective would continue to inform the study of ancient material until the advent of modern archaeology in the early decades of the twentieth century.

The Song antiquarian tradition was revitalized – after centuries of dormancy – in the Qing period, when the collecting and documenting of early objects again became an imperial pursuit. These interests reached their apogee during the reign of the Qianlong emperor, when his vast holdings were documented within a catalogue entitled *Xiqing gujian* in 1755. Numerous mirrors were included in this collation; they were assembled, following the precedent of the *Bogutu*, into a separate category that followed the ritual vessels, bells and weapons. The earliest work devoted

-
1. An insightful contextual analysis of mirror inscriptions is provided within Suzanne Cahill's study, "The Word Made Bronze: Inscriptions on Medieval Chinese Bronze Mirrors," *Archives of Asian Art* 39 (1986): 62–70.
 2. K. C. Chang, "Archaeology and Chinese Historiography," *World Archaeology* 13/2 (1981), p. 158.
 3. Wu Hung, *The Wu Liang Shrine: The Ideology of Early Chinese Pictorial Art* (Stanford, California: Stanford University Press, 1989), p. 42.

exclusively to mirrors dates from the Qianlong period, when Qian Dian (1741–1806) authored a two-volume collection known as *Huanhua baishixuan jilu*. This work represented one aspect of Qian's etymological scholarship. Within his analysis, early mirrors were considered as part of a broader corpus of ancient epigraphic evidence that included stone carvings and ritual vessels. His volumes on mirrors reproduced twenty-five examples from the Han and Tang periods, each illustrated by means of a line drawing. In its format, as well as its methodology, Qian's mirror study was indebted to Song scholarship; his prefatory statement positions his work within a lineage that originated with the *Bogutu*. A similar approach to ancient mirrors was followed by Liang Tingnan (1796–1861), whose volumes devoted to this subject were part of his compendium on classical texts entitled *Tenghuating*.

By the nineteenth century, the epigraphic interest in mirrors often took complete precedence over the objects' formal properties. A number of works appeared that were devoted exclusively to mirror inscriptions, with illustrations and descriptions conspicuously absent from the text. *Tongxiaobo*, written by Xu Yuanrun, exemplifies this method of analysis. After recording and annotating a series of mirror inscriptions dating from the Han to Song periods, Xu concluded with a brief essay on the value of this material to the study of classical traditions. The mirror – as a physical entity – was not considered at any point within his work. It is important to note that this approach was by no means restricted to studies of ancient mirrors; identifying relationships between early inscriptions and known texts was the central focus of much antiquarian scholarship in the post-Song era. Works that focused on ritual vessels, for example, also devalued formal description. While their pictographs were given considerable attention, "very little emphasis"⁴ was placed on recording the physical appearance and dimensions of these objects.

The Qing period also witnessed the development of extensive private collections of mirrors; the individuals who avidly acquired these objects often did value their aesthetic, as well as historic, properties. Such holdings were frequently documented by means of catalogues; many of these consisted of little more than a series of bound rubbings with no accompanying textual annotations. One of the most comprehensive collections was amassed by Xu Naichang (1862–1936), whose six-volume album records an impressive assemblage of objects dating from the Han to Ming periods.

As the dynastic era came to a close, the work of Luo Zhenyu (1866–1940) concluded the antiquarian phase of mirror scholarship. Luo was responsible for three major works on the subject; the *Gujing tulu* was essentially a pictorial compilation, while *Gujing mingji* and *Jinghua* were epigraphic studies. Many of the examples illustrated in the *Gujing tulu* were annotated in his literary analysis, although the collation is by no means exact. While Luo's work was more comprehensive in its treatment than those of earlier authors, his methodology remained securely within the limits of traditional analysis. Textual and formal issues were not integrated; in fact, the latter area was given little attention apart from the descriptive formulae that followed the precedent of the *Bogutu*.

The advent of modern archaeology profoundly affected all aspects of scholarship devoted to ancient China; the study of the bronze mirror has benefited from

4. Chang, p. 159, after Li Chi, "Zhongguo guqiwxue di xinjichu," *Bulletin of the College of Arts, National Taiwan University* 1 (1950): 63–79.

both a plethora of excavated evidence and the emergence of innovative methods of inquiry. The earliest writings on Chinese mirrors to incorporate archaeological data were produced in Japan, where Han mirrors had been excavated in the final decades of the Qing period. When a volume on ancient mirrors, authored by the collector Tomioka Kenzō (1873–1918), was published posthumously in 1920,⁵ Japanese archaeology already had a fifty-year history. Tomioka's study, *Kokyō no kenkyū*, was remarkably detailed yet comprehensive in scope; his analysis involved both Japanese and Chinese mirrors, the latter including examples excavated from his native soil. In contrast to scholarship associated with the Chinese antiquarian tradition, Tomioka's research focused upon the historical and formal evolution of the mirror as an independent entity. His analysis addressed issues of ornamental imagery, typology and national styles. When inscriptions were reproduced and discussed, they were regarded as components of an artifact rather than as part of a literary legacy. For the present study, Tomioka's work was particularly significant in another respect; *Kokyō no kenkyū* was the first work to propose the existence of a pre-Han mirror tradition.

Tomioka's mirror collection was catalogued six years after his death by a young scholar named Umehara Sueji (1893–1987).⁶ Deeply influenced by both Tomioka's meticulous attention to formal detail and broad cultural perspective, Umehara published a monograph on ancient mirrors in 1925.⁷ In the course of Umehara's career, modern archaeology in China developed rapidly and provided him with a vast corpus of data that had been unavailable in Tomioka's lifetime. Interest in antiquities was also to burgeon in the West and Japan in the decades between the world wars; many objects were to leave China after being acquired by foreign collectors and institutions. Umehara traveled extensively in Japan, Europe and the United States, documenting the Chinese objects that had been dispersed during this period.

Umehara's early interest in mirrors was never abandoned; his monograph entitled *Kanizen no kokyō no kenkyū*, published in 1935, stands as the earliest work devoted exclusively to pre-Han mirrors and a testament to the author's command of this newly emerging body of material.⁸ Drawing extensively on objects collected at the Zhou royal cemetery site of Jincun at Luoyang, the work contained detailed descriptions and illustrations of surface imagery and mirror typologies. Umehara's method of inquiry also embraced issues of comparative development. His knowledge of Soviet archaeology and museum collections in Moscow and Leningrad enabled him to draw analogies between early Chinese mirrors and those recovered in Siberia. As the present study will document, the possibility of a relationship between these mirror-using traditions has subsequently been supported by archaeological evidence. Japanese scholarship on ancient mirrors — exemplified by the writings of Umehara and, more recently, an encyclopedic study authored by Higuchi Takayasu⁹ — is distinguished by its dual emphasis on formal analysis and comparative cultural development: an approach indebted to the pioneering research of Tomioka Kenzō.

5. Tomioka Kenzō, *Kokyō no kenkyū* (Kyoto: n.p., 1920).

6. Umehara Sueji, *Tokaan kokyō zuroku* (Kyoto: Tomioka Matsutaro, 1924).

7. Umehara Sueji, *Kankyō no kenkyū* (Tokyo: Okashoin, 1925).

8. Umehara Sueji, *Kanizen no kokyō no kenkyū* (Kyoto: Tōhōbunka gakuin, 1935).

9. Higuchi Takayasu, *Kokyō* (Tokyo: Shinchōsha, 1979).

The early antiquarian tradition in mirror studies was not completely forsaken in the wake of modern archaeology. A two-volume study on Han and pre-Han mirrors, *Yanku cangjing*, compiled by Liang Shangchun and published in 1940, offers an insight into the manner in which Chinese scholars approached both a new body of evidence and its attendant methods of analysis. Although Liang cites Umehara's work, as well as that of the Swedish sinologist Orvar Karlbeck (1879–1967), the format of his study – a catalogue with photographs of each object accompanied by a formulaic series of annotations – appears far more akin to traditional Chinese scholarship than to contemporary writings. While his presentation is decidedly Song in its structure, Liang's prefatory essay on pre-Han mirrors does reveal a significant methodological shift; indeed, this development would seem inevitable in light of the consistent absence of inscriptions among the Zhou examples. The literary tradition, in which inscribed mirrors had previously been situated, did not provide a viable context for these Bronze Age reflectors.

Liang's introduction offered an alternative environment, one in which mirrors were organized into a series of specific formal categories. To a certain degree, one still read (i.e., deciphered) the surface; once the style was recognized, the object could be classified as an element of a broader stylistic whole. This type of formal taxonomy was a basic tool of modern archaeology, as well as a method of inquiry widely used in the Western art historical tradition. Liang proposed ten formal categories for pre-Han mirrors and grouped his data accordingly. Each entry in his catalogue noted the area from which the object was recovered, as well as a detailed description of its surface imagery. This material encompassed an impressive geographical span; objects were cited from the northern borderlands, as well as the Huai river region in Anhui province. The mirrors from this latter area constituted the largest number of objects in Liang's study; these "Huai mirrors" would serve as the basis for an examination by the Swedish sinologist, Bernhard Karlgren (1889–1978), in the year following the publication of *Yanku cangjing*.

As noted above, Liang acknowledged the work of Orvar Karlbeck in the preface to his catalogue. Karlbeck, who will be discussed in detail in the fifth chapter of the work to follow, collected extensively in China during the 1930's. He amassed a considerable number of bronze mirrors, particularly in the Shou district of the Huai river valley. Examples procured by Karlbeck were published by Liang and later by Bernhard Karlgren. The latter's detailed analysis of what he and Karlbeck termed the "Huai" style appeared in the *Bulletin of the Museum of Far Eastern Antiquities* in 1941.¹⁰ Karlgren's study attempted to determine the formal constituents of mirrors recovered in the Anhui region; his work marked the earliest effort to analyze a regional style of mirror ornament. While later archaeological evidence suggests that the "Huai" tradition was not restricted to the lower Yangzi region, Karlgren's insights nevertheless provided an invaluable foundation for subsequent studies of regional production. It is noteworthy that his interest in mirrors had actually originated in the decade prior to the publication of the Huai study; in 1934, Karlgren had authored a lengthy article on early mirror inscriptions, in which he translated and reconsidered material presented in the writings of Luo Zhenyu and other earlier scholars.¹¹

10. Bernhard Karlgren, "Huai and Han," *BMFEA* 13 (1941): 1–125.

11. Bernhard Karlgren, "Early Chinese Mirror Inscriptions," *BMFEA* 6 (1934): 9–79.

Since the founding of the People's Republic in 1949, Chinese archaeological activity has accelerated at a rapid rate. Conducted under scientifically controlled conditions, excavations have yielded vast numbers of ancient bronzes; mirrors – dating from the second millennium B.C. to the Ming dynasty – have been well represented among these discoveries. In 1960, a four-volume series, entitled *Zhongguo chutu gujing tulu*, illustrated mirrors that had been unearthed in various regions.¹² Each album of photographic reproductions was prefaced by a brief essay, which offered a chronological and stylistic context for the material. The sheer numbers of excavated mirrors – hundreds have been cited in the archaeological literature, although undoubtedly many more have been recovered – have reinforced the value of classification schemes; their formulation has been the major focus of mirror scholarship in China during recent decades.

In 1984, Kong Xiangxing and Li Yiman published a history of the Chinese mirror, entitled *Zhongguo gudai tongjing*, that presented a chronological survey spanning from the Shang to the Yuan periods.¹³ Within chapters designated according to dynastic epochs, the authors grouped mirrors under a series of formal designations, reserving comments on technical or historical matters for the concluding paragraphs. While excavated objects provided the basis for the discussion of early mirrors, the aesthetic and cultural issues raised by this archaeological evidence were not analyzed. Contemporary Chinese mirror scholarship continues to value matters of formal classification and periodization over the concerns raised by more synthetic methodologies. The presence of Marxist nomenclature in Chinese archaeological writing on mirrors has been of little consequence to the development of a materialist critique.¹⁴ Although ancient mirrors, for example, raise relevant questions concerning class and ethnicity, these areas have remained unexplored in the literature. Yet to be voiced, let alone pursued, are the possible connections between mirror use and gender; in the upcoming decade of archaeological activity and inquiry, it is hoped that material will be available to construct a feminist perspective on this issue.

The investigation to follow, while significantly indebted to the traditional scholarship reviewed above, departs from its predecessors in several respects. This study will specifically focus upon the origins of the Chinese mirror and therefore utilize an archaeological record that dates exclusively from the pre-Qin period. Although the examination is structured as a chronological survey, individual mirrors will be related whenever possible to specific contemporary cultural and artistic conditions that may have informed their production. Established methods of analysis for bronze mirrors, notably stylistic comparison and formal classification, will certainly be employed in the course of this study; these methods will be integrated, however, into a broader examination that will consider the early mirror in terms of both its process of development and its physical properties.

12. The four volume collection includes the following titles, all published in 1960 by Wenwu chubanshe: *Shaanxi sheng chutu tongjing*; *Luoyang chutu gujing*; *Hunan chutu tongjing tulu*; *Sichuan sheng chutu tongjing*.

13. Kong Xiangxing and Li Yiman, *Zhongguo gudai tongjing* (Beijing: Wenwu chubanshe, 1984).

14. For a discussion of the application of a Marxist critique to the study of Chinese archaeology, refer to Chang (1981), pp. 166–168.

II. Reflection and Reception: An Overview of the Analysis

The material to be presented in this work relates to the introduction and earliest history of one specific category of object within a vast and complex culture. Identifying the process by which the mirror was assimilated into the civilization of Bronze Age China forms a crucial component of this analysis. In contrast to many bronze objects created during the *sandai* period, the mirror did not appear to experience significant production and dissemination until the final centuries of Zhou rule. While ritual vessels and other implements enjoyed currency in early dynastic culture, the mirror remained mysteriously situated on its periphery. As will be detailed in the chapters to follow, the initial history of the mirror in China is one of adaptation and gradual acculturation. The issue of reception will therefore constitute a significant aspect of both the stylistic and contextual examination.

As noted previously, a mirror is distinguished by its reflective capacity rather than its form. While a looped and decorated disk has become synonymous with the mirror tradition of China, any examination of this particular object also necessitates a fuller consideration of reflective surfaces. Common usage equates a mirror's power with the replication of imagery. The earliest appearance of the term "mirror" in China suggests this correlation; the character read as *jian*, which can be found among the oracle bone inscriptions of the Shang period, features a figure gazing into a water-filled basin.¹⁵ However, epigraphic evidence indicates that it was the act of self-reflection that was evoked here—not an object specifically created for that purpose. The character that is now most commonly used to signify a mirror—*jing*—made its initial appearance in late Bronze Age texts; the rare Zhou passages that preserve the use of this term, however, offer little insight into the purposes accorded the object.¹⁶

In examining the earliest Chinese mirrors, it is therefore essential to consider the nature of their reflective functions. Excavated material suggests that, in addition to replicating imagery, mirrors may also have served in ceremonial displays of sunlight, in the creation of fires and as burial furnishings.¹⁷ It is also important to scrutinize the criteria used in the archaeological literature to distinguish an object as a "mirror." The term is usually reserved for flat, looped disks whose basic form

15. A comprehensive analysis of the origin and early usage of the character read as "jian" is provided by Li Xiaoding in *Jiaguwen jishi* (Taipei: Institute of History and Philology, Academia Sinica, 1965), 8, pp. 2715–2717.

16. For a survey of early textual references to the mirror, consult the introduction to Du Naisong's study of Warring States mirrors, "Zhanguo tongjing chutan," *Gugong bowuyuan yuankan* 1984 (1), p. 60.

17. Evidence relating to the possible functions associated with the earliest Chinese mirrors is summarized by He Tangkun in his essay "Tongjing qiyuan chutan," *KG* 1988 (2): 173–176. For a discussion that focuses specifically on the relationship between mirrors and specula (*yangsui*), refer to Yue Shenli, "Tongqingjing tanyuan," *Dalu zazhi* 1958 (5): 16–17.

presages that of the later tradition. While such a typological characterization is justifiable, it nevertheless risks excluding relevant early material. In order to provide a full analysis, it is also necessary to examine objects that have been identified as circular disks, fittings and specula.

The first two chapters of this study will introduce the earliest evidence to date for the appearance in China of objects created for reflective purposes. These mirrors will be associated with bronze-using cultures to the north of the Shang and early Zhou states. In this regional context, the object defined as a mirror in the archaeological literature appears to have actually been one style of circular disk among many; these bronzes may have all shared similar functions as ritual paraphernalia — particularly solar reflectors — and as burial furnishings. It was from this northern tradition that the Chinese mirror ultimately evolved. It would not be until the late Spring and Autumn period, however, that a decorated, circular reflector would become the product of foundries in the Zhongyuan. Chapters Three and Four examine the emergence of a native tradition and the formal experimentation that accompanied this initial period of indigenous production. Typifying this early stage of development were objects that fused two bronzes of northern origins — a knobbed reflective plate and an openwork fitting — to create a distinctive “double tier” mirror. Objects of this style have been associated with the Zhou cemetery site at Jincun, suggesting that the mirror had begun to gain royal favor by the era of the Warring States.

The final turbulent centuries of the Zhou dynasty were a decisive period in the history of the early Chinese mirror. Hundreds — perhaps thousands — of Warring States mirrors have been recovered, particularly from areas below the Yellow River. This occurrence has been widely recognized by art historians and archaeologists; however, a comprehensive examination of the origins of the mirror in the south — best represented to date by examples collected prior to Liberation in the Huai region and those excavated since 1950 from sites in Hunan province — has never been undertaken. Chapters Five and Six of this study will focus upon this tradition and reconstruct the aesthetic and cultural conditions that contributed to its development. The rise of mirror use in these regions should not be regarded as an isolated geographic phenomenon, but rather one situated within the context of contact with central China. For example, Chapter Five includes an examination of a burial in Zhejiang province that contained a speculum whose surface decoration closely relates to mirror ornament found in the Zhongyuan; on the basis of this evidence, it will be suggested that firemakers may have served as an early form of mirror below the Yellow River. This study will conclude with a detailed consideration of the mirrors associated with the state of Chu, reassessing that tradition and proposing a chronology based on extensive archaeological evidence.

As summarized above, this examination will address both the formal and cultural constituents of the early Chinese mirror. Stylistic analysis makes it possible to comprehend the nature of its imagery and the sources for both the design elements and the compositional structure. It is hoped that this aspect of the study will more clearly situate the mirror within the artistic traditions of the Zhou period. By also considering the contextual and conceptual issues, it is possible to address the broader concerns of cultural transmission; the mirror offers an important example of an object that originated in the northern borderlands and ultimately flourished far to the south of the Yellow River.

For all of these areas of investigation, the future will undoubtedly provide a far fuller archaeological record. The study to follow does not in any way purport to be definitive; it is hoped that its usefulness to subsequent scholarship will lie in the various issues that are raised within the analysis. The early Chinese mirror offers a challenging area of inquiry; those who undertake its examination must be prepared to consider both the formal properties that have been preserved in bronze and the more elusive realities that were once captured upon the mirror's reflective surface.

Chapter One

The Appearance of the Mirror in the Second Millennium B.C.

The earliest objects identified as mirrors in the Chinese archaeological literature are small disks distinguished by their two differing surfaces. On one side, the bronze is smooth and unadorned, while its reverse face possesses a raised handle or knob at the center that is often surrounded by decorative patterns. These distinctive features compare to those found on mirrors produced in China in the Eastern Zhou period and archaeologists have applied this designation to a small group of objects that were created in the millennium that preceded that era. Reflection, as discussed in the introduction to this study, is the essential feature that defines any mirror. Implicit in the use of this term is both reflective capability and intent; it is assumed that the creator fashioned the object with an awareness of its specific relationship to light. The objects introduced in this chapter will be identified as mirrors on the basis of both their typological similarity to later Zhou examples and their formal relationship to objects of the second millennium B.C. from areas to the north of China, where reflective materials and solar imagery were prevalent during this period of the Bronze Age.

The oldest known examples of Chinese mirrors have been excavated at sites associated with the Qijia culture in modern Qinghai and Gansu provinces. In 1977, an object identified as a copper mirror was excavated in Qinghai at a burial site in Naimatai, located within Guinan county (Figs 1 & 2).¹ The mirror was considerably smaller than those produced in later periods; it measured 8.9 cm in diameter and had a thickness of only 3 millimeters. The object was found beneath the remains of the tomb's occupant and archaeologists have conjectured that it had been worn on strings around the neck.² Two small holes had been drilled along the mirror's outer edge; the remains of a broken central boss suggest that these perforations, perhaps made during the owner's lifetime, were added as an alternative means of suspension. The broken loop at the center appears to argue against identifying this object as a stationary pendant; the placement of this boss may indicate that the disk was originally created to be threaded and either held or suspended loosely from an article of clothing.

The surface with the small knob was decorated with an image that resembled a seven-point star, that was outlined in reserve on a ground of oblique striae. While

1. The discovery of the mirror at Naimatai was first reported in *Qinghai ribao* on February 18, 1978. The mirror was subsequently published in *Wenwu kaogu gongzuo sanshi nian* (Beijing: Wenwu chubanshe, 1979), p. 162, pl. 14:4. For additional information, refer to Li Huhou, "Qijia wenhua tongjing de feipo pi jianding," *KG* 1980 (4): 365–368 (a metallurgical analysis) and An Zhimin, "Zhongguo zaoqi tongqi de jige wenti," *KGXB* 1981 (3): 277, 282.

2. *Wenwu kaogu gongzuo*, p. 162.

this is to date the only published example, other disks with this type of imagery have been recovered from sites in neighboring districts.³ An undecorated mirror, of similar form but smaller size — 6 cm in diameter — was found at a Qijia site in the Guanghe district of Gansu province.⁴ Fragments of other circular objects, classified either as rings or disks, have also been identified at Qijia sites.⁵ Several of these were reported to have been excavated along with the mirror at Naimatai, but they have yet to be fully documented or published.⁶

Radiocarbon dating for the Qijia culture suggests a span of nearly a millennium, with the latest limit at about 1500 B.C.⁷ Extending over a considerable geographical area, Qijia sites have been identified as far north as the Ningxia region and western Inner Mongolia.⁸ While this cultural sphere was indebted to Yangshao agrarian traditions, its development may also have been shaped by influences from the nearby Mongolian steppelands.⁹ The Qinghai mirror suggests contacts with this expansive region, as well as areas even farther to the northwest. Small copper disks with star patterns on one side have been found among objects associated with the proto-Scythian "Timber-grave" culture at the Soviet site of Berezhnovka (Fig. 3), dating to the middle of the second millennium B.C.; in all likelihood the precedents for this image were the sun symbols that occur widely on pottery from early Bronze Age sites in Russia and Siberia (Fig. 4).¹⁰ The star motif is rare in ancient China; to date its only major appearance occurs among a group of inlaid chariot fittings from an elite burial (M20) at Anyang.¹¹ Included among the objects displaying this image were a group of small convex disks identified as harness buttons. Evidence to be introduced in the chapter to follow will suggest that in areas along China's northern frontier, horse fittings were often stylistically akin to other circular bronze ornaments, including those identified as mirrors. During their initial period of indigenous production, Chinese mirrors were often buried alongside circular horse trappings in the Zhongyuan; this practice will be discussed in detail in the course of this study.

An Zhimin, in his discussion of the mirror from Naimatai, noted its close resemblance in form and decoration to a group of mirrors excavated at Anyang.¹² While the Qijia examples predate those recovered from Shang sites, they neverthe-

3. This information was conveyed by Yu Weichao of the Museum of Chinese History (Zhongguo Lishi Bowuguan) in private communication, January, 1984.

4. This mirror was reported to have been excavated in 1975 at Qijiaping in Guanghe xian (*Wenwu kaogu gongzuo*, p. 151, n. 16; Yan Wenming, "Lun Zhongguo de tongshi bingyong de dai," *Shiqian yanjiu* 1984 (1), p. 39).

5. An Zhimin, p. 273, Fig. 2:6–9; He Tangkun, p. 174.

6. An Zhimin, p. 277.

7. A radiocarbon profile of the Qijia culture is illustrated by Kwang-chih Chang in *The Archaeology of Ancient China*, 4th rev. ed. (New Haven; London: Yale University Press, 1986), p. 282, Fig. 246.

8. *Ibid.*, p. 281.

9. *Ibid.*

10. Marija Gimbutas, *Bronze Age Cultures in Central and Eastern Europe* (Paris; The Hague: Mouton, 1965) p. 558 (the copper disk with star pattern); p. 589, Fig. 409:c (sun symbols engraved and stamped on pottery).

11. Shi Zhangru, *Bei zu muzang* (Taipei: Institute of History and Philology, Academia Sinica, 1970) (Series: *Xiaotun*; 1:3:1, 2): 27–155, pls. 2–70. It has been suggested that the star motif, forming the terminals of bottle horns on certain animal images at M20, served as a prototype for the subsequent development of pronged horns on animal heads in the early Western Zhou period (Jessica Rawson, "Eccentric Bronzes of the Early Western Zhou," *Transactions of the Oriental Ceramic Society* 47 (1982–83): 15–16). Rawson does not attempt to explain the unprecedented appearance of the star design at Anyang; she does note, following Shi's observation, that "it (the motif) may have been used as some sort of emblem" (p. 16).

12. An Zhimin, p. 282.

less share with them certain features that suggest a common origin apart from the culture of the Central Plains. The known Shang mirrors appear to date exclusively to the Anyang period; in fact, with only one notable exception, all scientifically excavated examples have been recovered in the burial precincts of the final royal capital. One object was recovered in 1934 from a tomb (M1005) containing six sacrificial attendants in the vicinity of a large tomb in the royal cemetery at Xibeigang (Fig. 5).¹³ The mirror was among a small group of funerary objects that included both bronze and ceramic vessels. Among these furnishings were a pair of bronze *yu*; these deep basins are traditionally classified as food vessels. The examples from M1005 are rare in their inclusion of four intertwined serpents, cast in relief, on the interior of the bowls. One scholar has suggested that these vessels were created for use in rainmaking rituals.¹⁴ As the basis for this argument rests exclusively on later texts, its conclusions must be considered with extreme caution. It is not impossible, however, that such vessels, along with the bronze mirror, were utilized in some specific activity associated with the tomb's occupants.

When the mirror from M1005 was excavated, now over half a century ago, considerable debate arose over its identification. Its small size (6.7 cm in diameter) immediately distinguished it from the corpus of known Zhou and Han mirrors. In addition, its surface decoration — quadrants of parallel lines arranged in perpendicular sequences — did not conform to a known Anyang decorative style. The bar-shaped knob in the center of the decorated face suggested to some scholars that the object functioned as a lid; others argued that the disk was created as a decorative fitting. The final decision was based on the formal resemblance between the M1005 object and undecorated mirrors found in the Yenisei region of western Siberia.¹⁵ These Siberian examples will be discussed in the course of this chapter.

The mirror from M1005 remained unique among Anyang bronze objects until the excavation in 1976 of an undisturbed royal burial, known as M5, in the Xiaotun sector.¹⁶ This tomb, unprecedented in the quantity and opulence of its grave goods, contained four small, decorated disks ranging in diameter from 7.1 cm to 12.5 cm. These objects shared formal features with the bronze "mirror" from M1005; all displayed prominent central bosses and striated decoration on their knobbed side. The examples from M5, however, possessed more elaborate surface patterns. Two of the mirrors featured concentric rings filled with finely executed striations (Fig. 6 left). The remaining pair were ornamented with quadrants of adjoining lines arranged in the so-called "leaf vein" design (Fig. 6 right). These patterns, like the star motif from Qinghai, are not commonly identified with late Shang bronze

13. Chen Mengjia, "Yindai tongqi," *KGXB* 7 (1954), p. 25, pl. 15; Gao Quxun, "Yindai de yimian tongjing ji qi xiangguan zhi wenti," *Bulletin of the Institute of History and Philology, Academia Sinica* 29 (1958): 685–721; Umehara Sueji, "Chūgoku In Shu no kokyō," *Shirin* 4 (1959): 469–471.

14. Peter Glum, "Rainmaking at Anyang?" *BMFEA* 54 (1982): 241–272. It is regrettable that Glum, when citing the contents of M1005, omits mention of the mirror entirely and thus fails to consider the possible role of this object within his proposed ritual context.

15. For full discussion of the debate over the identification of the mirror, refer to Gao, pp. 710–720.

16. The four mirrors from M5 were included in an early report on the site, "Anyang Yinxu wu hao mu de fajue," *KGXB* 1977 (2): p. 72, pl. 12:2, 3. A detailed description, along with line drawings of the decorated surfaces, appeared in the subsequent monograph *Yindai Fu Hao mu* (Beijing: Wenwu chubanshe, 1980), p. 103, Figs. 65, 68, col pl. 12:1, 2.

tradition. This type of imagery, however, does relate to the various renditions of solar symbols previously noted from Soviet sites; engraved or stamped on pottery, these sun signs closely parallel the designs found on the Anyang mirrors.¹⁷ This choice of imagery may offer a clue to the reflective function of these disks and therefore support their attribution as mirrors.

The identity of the occupant of M5 can be established with reasonable certainty; this information makes it possible to reconstruct various conditions that may have contributed to the appearance of the rare quartet of bronze mirrors in this burial. Dedicatory inscriptions found on a number of bronze vessels recovered from the tomb indicate that the deceased was a royal personage known from the oracular records as Fu Hao ("Lady Hao").¹⁸ A principal "consort" of Wu Ding, a ruler of the second generation to occupy Anyang, Fu Hao was apparently a highly visible member of the Shang elite. While the inclusion of mirrors among her burial furnishings might suggest a gender-based relationship between these objects and members of the female sex, the evidence available at present is too limited to support a meaningful analysis of this issue. However, it is possible to reconstruct Fu Hao's considerable political status and regional mobility, privileges that were in all likelihood closely connected to her role as a provider of male offspring.¹⁹ Divinations made on behalf of Fu Hao by the king reveal his concern for her welfare under such diverse circumstances as childbirth and battle. Of the latter context a more complete record exists, suggesting that she was invested with considerable military responsibility. The largest of her recorded campaigns involved 13,000 Shang soldiers in a punitive expedition against a region known as Qiangfang.²⁰ Scholars have situated Qiangfang in the western reaches of the Shang state, at the lower juncture of modern Shanxi and Shaanxi provinces.²¹ It would appear that such attacks were motivated at least in part by the desire for captives; large numbers of Qiang people are recorded as sacrificial victims and attendants at Anyang.²² There are also oracular references to suggest that the Shang associated this group with horses.²³ It is possible that the Qiang, possessing some freedom of movement, had contacts with both the Shang and cultural spheres to the north and west.

In his study of the relationship between Shang bronzes and those from regions to the north, Lin Yun considered the presence of mirrors at Anyang to be a

17. Gimbutas, p. 589, Fig. 409:b, c.

18. References to Fu Hao among the divination inscriptions are summarized within the biographical profile authored by Wang Yuxin et al. and entitled "Shilun Yinxu wu hao mu de 'Fu Hao'," *KGXB* 1977 (2): 1-12.

19. *Ibid.*, pp. 11-13.

20. *Ibid.*, p. 2, 9.

21. Geographical reconstructions of the Qiangfang territory are offered by Li Xueqin, *Yindai dili jianlun* (Beijing: Kexue chubanshe, 1959), pp. 77, 79-80, and Chen Mengjia, *Yinxu buci zongshu* (Beijing: Kexue chubanshe, 1956), pp. 276-277.

22. For a comprehensive discussion of the Qiang and their position within the Shang state, refer to Shirakawa Shizuka, "Kyōzoku kō," *Kōkotsu kinbungaku ronsō* (9) 1958: 1-16. The diversity of tasks performed by Qiang captives at Anyang are also detailed by Hu Houxuan, "Jiaguwen suojian Yindai nuli de fan yapo dou shi," *KGXB* 1976 (1): 8-10.

23. Chen Mengjia, p. 277.

manifestation of the influence of northern traditions upon the Yinxu culture.²⁴ He postulated that these objects originated on the periphery of the Shang state, where traditional agricultural communities may have been influenced by groups "who had adopted a primarily mobile way of life."²⁵ There is considerable evidence that nomadic pastoralism developed on the steppelands of northern and western Asia, particularly in regions of Siberia, at a relatively early date.²⁶ These developments may have had significant repercussions for residents of China's northern frontiers. Lin associates the mirrors from Anyang with examples excavated from distant burials in Siberia's Minusinsk Basin.²⁷ These latter mirrors can be dated to the Karasuk culture, which flourished in the Yenisei valley of the Minusinsk region around the year 1000 B.C.²⁸ Lin would not suggest a direct connection between China and Siberia, rejecting the belief that "the Yin-hsu bronze mirrors were brought from Minusinsk."²⁹ A more plausible link between these regions may have been forged by the inhabitants of China's vast northern and western borderlands. In all likelihood, people such as the Qiang and residents of other so-called "alien states" (*fang*) facilitated this process of cultural transmission.

It is noteworthy that the Qiang have been specifically associated with the use of the mirror. Han period texts, for example, report that a group with this name brandished mirrors as shields during Chinese pacification efforts;³⁰ presumably these examples were larger disks of the type used in the later Bronze Age. The association between weapons and mirrors has a considerable history along China's northern frontiers and this relationship will be discussed in the following chapter. The recent publication of an excavation in central Shaanxi, perhaps in the old Qiangfang area or

24. Lin Yun, "A Reexamination of the Relationship between Bronzes of the Shang Culture and of the Northern Zone," *Studies in Shang Archaeology* (New Haven; London: Yale University Press, 1986), pp. 251–253. While Lin's assessment of the influence of the so-called "northern zone" upon certain Shang bronze traditions represents a majority opinion in the scholarly community, it is important to cite a notable counter position. Li Hengqiu's study ("Tongjing de yuanliu – Zhongguo qingtong wenhua yu Xiboliya qingtong wenhua de bijiao yanjiu," *Gugong xueshu jikan* 1:4 (Summer, 1984): 29–70; 2:3 (Winter, 1985): 45–82) offers a diffusionist model of mirror development, arguing that both the north and east Asian traditions were inspired by the mirrors produced at Anyang. While serious objections can be made to both Li's conclusions and methodology, this lengthy study does bring together comprehensive descriptions and photographs of nearly all published Shang and Western Zhou mirrors.

25. Lin, p. 273.

26. Karl Jettmar has written extensively on this issue; of particular significance to the present examination are *Die frühen Steppenvölker* (Baden-Baden: Holle, 1964), pp. 216–220, and "Die Entstehung der Reiternomaden," *Saeculum* (17) 1966: 4–27. Soviet authors who have addressed the origins of nomadism in Siberia include S. V. Kiselev, *Drevniaia istoriia Iuzhoi Sibiri* (Moskva: Akademiia nauk, 1951), pp. 288–291, and M. P. Griaznov, "Etapy razvitiia choziaistva skotovodskikh plemen Kazachstana i Iuzhoi Sibiri v epochu bronzы," *Kratkie soobshcheniia Instituta etnografii* (26) 1957: 21–28.

27. Lin Yun, p. 253.

28. The Karasuk culture was first proposed by S. Teploukhov in two pioneering articles dealing with the classification of the Bronze Age cultures in the Yenisei region of the Minusinsk Basin. The Karasuk derived its name from a river that flowed into the Yenisei and whose banks yielded objects used in Teploukhov's analysis ("Drevnie pogrebeniia v Minusinskom krae," *Materialy po etnografii* 3:2 (1927): 97–107; "Opyt klassifikatsii drevnikh metallicheskh kul'tur Minusinskogo kraia," *Materialy po etnografii* 4:2 (1929): 44–45). Teploukhov's periodization is summarized in English by James H. Gaul in "Observations on the Bronze Age in the Yenisei Valley, Siberia," *Peabody Museum Papers* 20 (1943): 162–170. Examples of Karasuk mirrors, which are undecorated, knobbed disks of a size corresponding to the Chinese examples of the second millennium B.C., are reproduced by Gaul, p. (163) and N. L. Chlenova, *Proiskhozhdenie i Ranniia Istoriia Plemen Tagarskoi Kul'tury* (Moskva: "Nauka," 1967), pl. 21:1–3.

29. Lin Yun, p. 251.

30. *Hou Han Shu*, juan 87: "Xi Qiang" (ed. used: (Beijing: Zhonghua shuju, 1965), p. 2886).

its vicinity, reports the unearthing of another Shang period mirror. Recovered in 1982 at a burial in the Chunhua district (Fig. 7),³¹ the object can be compared with its counterparts from Anyang. Although the Shaanxi mirror is smaller than the examples from M5 — it measures only 5.5 cm in diameter — its bar handle and linear decoration recall the previously excavated examples. The ornamentation is simpler on the Chunhua disk; its parallel striations are contained within a single concentric register. Four raised circlets, of the type found along the outer edge of two of the mirrors from M5, interrupt the striae at equidistant points within the ring of decoration.

The mirror was recovered with a simply decorated *ding* vessel and several weapons from a small burial in Chunhua's western district.³² The weapons included a curved knife of the type Lin classifies among those originating along China's northern frontiers.³³ Another contemporary burial in the western sector also suggests the relationship between this region and areas to the north.³⁴ Four gold earrings were unearthed here that closely relate to examples found at sites in the upper Yellow River region of Shaanxi and Shanxi.³⁵ Gold rarely appears in central China during the Shang period, although earrings and ritual headdresses fashioned of this precious metal have been found at a number of the sites on the periphery of the Mongolian steppes. In addition, these burials have also yielded numerous objects displaying animal-head terminals.³⁶ An ibex-pommeled weapon of this type was also unearthed at M5; this is another object that Lin groups with the bronze mirrors as an example of northern influence at Anyang.³⁷ This style of weapon enjoyed a wide distribution over areas from the Black Sea to northern China.³⁸ The knife from M5 closely compares with an example excavated in the upper Yellow River site at Yantoucun in Suide xian, Shaanxi province.³⁹ Such objects also occur at sites between the northern frontiers and the Central Plain; an example was recently reported from a Shang period burial in the Lingshi district of lower Shanxi.⁴⁰ Among the other objects recovered here were a pair of *jue* vessels bearing the graph read as "Qiang."⁴¹

This evidence strongly suggests that the bronze mirrors and ibex-pommeled knife found among the bronzes in Fu Hao's burial could have been brought back from the areas of her military campaigns in the Shanxi-Shaanxi region; perhaps they

31. "Shaanxi Chunhua xian chutu de Shang Zhou qingtongqi," KGYWW 1986 (5): 15:4.

32. *Ibid.*, p. 20.

33. Lin Yun, p. 243:15.

34. "Shaanxi Chunhua," p. 15:8, 18.

35. "Shanxi Luliang xian Shilou zhen you faxian tongqi," WW 1960, p. 52:5; "Shilou Houlanjiagou faxian Shangdai qingtongqi jianbao," WW 1962 (4/5), p. 34:10; "Shanxi Yonghe faxian Yindai tongqi," KG 1977 (5), p. 356:5.

36. Examples of animal-headed objects from the upper Yellow River sites include an ibex-pommeled knife ("Shaanxi Suide Yantoucun faxian yipi jiaocang Shangdai tongqi," WW 1975 (2), p. 84); spatula-shaped implements (*bi*) with snake terminals ("Shanxi Houlanjiagou," p. 34:5; "Shanxi Shilou Chujiayu Caojiayuan faxian Shangdai tongqi," WW 1981 (8), p. 50:4) and a ladle (*dou*) with frog and serpents ("Shanxi Houlanjiagou," p. 34:1).

37. Lin, pp. 250–251, Fig. 51:1; *Fu Hao mu*, pl. 66:1.

38. Lin discusses these weapons in detail, citing examples that span from the Pontic region to Anyang (pp. 245–248).

39. "Shaanxi Suide," p. 84.

40. "Shanxi Lingshi Jingjiacun Shang mu," WW 1986 (11), p. 14, Fig. 20:4.

41. *Ibid.*, pp. 17–18; the graph is reproduced on p. 7, Fig. 11:5.

were procured as war booty and ultimately interred along with other possessions. The comparable mirror from M1005 may be from the burial of Qiang sacrificial victims; the object could have been created elsewhere and brought with them into the royal capital. The archaeological evidence has yet to suggest that the Shang themselves adopted the use of the mirror to any significant degree. Even with the publication — as this study goes to press — of another mirror from a site at Anyang,⁴² the current total of six extant examples still represents a minuscule portion of the known Shang bronze corpus.

Sources for the production of these mirrors appear better situated within regions where influences from both China and areas to the north interacted to create localized indigenous traditions. The provenance of another Shang mirror again suggests such a cultural environment. In 1930, a bronze disk, identified as a mirror, was procured by a Swedish missionary at a trading station situated at the modern border of Hebei province and Inner Mongolia (Figs 8 & 9).⁴³ Now in the collection of the Museum of Far Eastern Antiquities in Stockholm, this object favorably compares with the Shang period examples introduced above. Comparable in size (6.9 cm in diameter) and displaying four concentric rings with parallel striations, this example closely resembles the pair of smaller mirrors from M5. While not excavated under scientific conditions, the mirror was reported to have been unearthed in a region of northernmost Hebei that has been associated with the Lower Xiajiadian culture; this cultural sphere can be associated with influences from both Chinese sources and those originating to the north. The following chapter will examine the early history of the mirror along the expansive borderlands of the northern frontier. The production of reflective objects flourished here during a considerable portion of the Bronze Age. From this tradition would descend the mirrors cast at the foundries of the Eastern Zhou elite.

42. "1986 nian Anyang Dasikongcun nandi de liang zuo Yin mu," *KG* 1989 (7): p. 593, pl. 4:6.

43. J. Gunnar Andersson, "Hunting Magic in the Animal Style," *BMFEA* 4 (1932), p. 251, pl. 16:3.

Chapter Two

Mirrors Along China's Northern Frontier in the Zhou Period

The rare examples that attest to the existence of the mirror in China during the second millennium B.C. give little indication of an important artistic tradition to follow. As discussed in the previous chapter, these small disks remained apart – in their typology and surface ornament – from the objects and styles associated with the Shang bronze tradition. The peripheral nature of these early mirrors would seem confirmed by their virtual disappearance from the archaeological record after the fall of Anyang. To date, the literature has cited very few objects as mirrors from Western Zhou excavations; those bronzes accorded this designation have been small, undecorated disks with central bosses.¹

The great florescence of the mirror in the Eastern Zhou period, therefore, would appear to have been an unprecedented phenomenon. Indeed, if one confines an investigation of early and middle Zhou mirrors exclusively to the archaeological record from central China, the paucity of evidence does suggest that this object emerged in the late Spring and Autumn period without the benefit of an existing tradition. An investigation of the origins of the Chinese mirror, however, must reach beyond the Zhongyuan. Regions along China's northern frontier are particularly important in this regard; in the Zhou period, groups whose ethnic and cultural traditions were associated with regions of northern Asia, particularly Siberia, populated vast expanses of China's borderlands. The following chapter will examine two regional precedents – the disk assemblages found at burials in the northeast and the so-called "Ordos" bronzes – that were of consequence to the development of the Eastern Zhou mirror.

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1. Several undecorated disks identified in the archaeological literature as mirrors have been reported from Western Zhou sites in Shaanxi. One example, measuring 7.2 cm in diameter, was unearthed at Xinzhuanghe in Fengxiang; a second mirror, found in Baoji, was slightly smaller (6.5 cm). These finds were reported by Wang Guangyong and Cao Mingtan in "Baoji shi jiaoku he Fengxiang faxian Xi Zhou zaoqi tongjing deng wenwu," *WW* 1979 (12):90–91. An additional mirror, whose dimensions were not cited, was unearthed with two *ding* vessels at the village of Shijiayuan in the Chunhua district ("Shaanxi Chunhua Shijiayuan chutu Xi Zhou da ding," *KGYWW* 1980 (2), p. 20). This latter discovery is noteworthy, as a rare decorated mirror of the Shang period was also recovered from this district (see Chapter One, n. 30); the earlier example was similarly reported to have been buried with a *ding* vessel. For a discussion of Western Zhou mirror finds, consult Li Hengqiu, "Tongjing de yuanliu," (1:4):37–43. It is important to note that the archaeological literature has identified at least one ornamented bronze disk from a Western Zhou site as a mirror. The object, excavated at Fufeng Wangtaichuancun in Shaanxi, measured 8 cm in diameter and displayed a simple, curvilinear pattern commonly found on late Western Zhou bronze vessels (Luo Xizhang, "Fufeng chutu de Shang Zhou qingtongqi," *KGYWW* 1980 (4), p. 16, Fig. 11). He Tangkun identified this object as a specula (*KG* 1988 (2), p. 174), although he gave no evidence to support this identification. In all likelihood, the object was actually intended to serve as a lid.

I. Bronze Disk Assemblages in the Northeast

A. The Yan State in Hebei Province

Significant documentation for the production of bronze disks, whose styles include those related to the Chinese mirror, is provided by archaeological material associated with the state of Yan and the regions beyond its borders to the northeast. Yan was a large ducal territory located in modern Hebei province; loyal nobles had been enfeoffed here by Wu Wang in the years immediately following the Western Zhou ascendancy. This region was to serve as a political and geographical buffer between the dynastic state and various groups of farmers and herders living in regions to the north. There was significant precedent for such colonization in Hebei; archaeological evidence has revealed a number of important Shang period sites in the province. The extensive excavations at Taixicun in the Gaocheng district have yielded numerous objects, particularly ritual bronze vessels, with close counterparts in regions to the south.² The strength of the Shang tradition here has actually occasioned speculation on the possible existence of a pre-Anyang royal capital in this area.³

The relatively early presence of Shang culture in Hebei has also been documented farther to the north, in the vicinity of Beijing. A burial excavated within the metropolitan district at Lijiacun in Pinggu xian contained bronze vessels whose styles suggested them as contemporaries to those found at Taixicun; Robert Thorp has identified both of these sites as dating to what he designates as the Zhengzhou-Anyang Transitional Period.⁴ However, in contrast to the consistent adherence to Shang styles that characterized the Gaocheng material, objects from Lijiacun bespeak a duality of traditions. While the ritual vessels included along the tomb's upper ledge clearly evoke dynastic practices, a variety of small objects found in the burial chamber suggest influences from a more regionalized source. This material included items of gold jewelry, suggesting cultural affinities with other northern areas along the upper Yellow River where the use of this precious metal was relatively common in the Shang period.⁵ Also recovered among the Pinggu objects were rare circular disks featuring human faces and animal images, as well as

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2. The most comprehensive source for material excavated from Taixi in Gaocheng is the monograph entitled *Gaocheng Taixi Shangdai yizhi* (Beijing: Wenwu chubanshe, 1977). For a discussion of the stylistic relationship between a vessel from Gaocheng and the contemporary traditions in Shang regions to the south of Hebei, refer to Wen Fong (ed.), *The Great Bronze Age of China* (New York: Metropolitan Museum of Art, 1980), p. 119.
 3. Kwang-chih Chang, *The Archaeology of Ancient China* — 3rd ed. — (New Haven; London: Yale University Press, 1977), p. 260.
 4. "Beijing shi Pinggu xian faxian Shangdai muzang," *WW* 1977 (11):1–8. For a detailed discussion of the determinants of the Zhengzhou-Anyang Transitional Period, refer to Robert L. Thorp's study entitled "The Growth of Early Shang Civilization: New Data from Ritual Vessels," *Harvard Journal of Asiatic Studies* (45:1) 1985:5–75.
 5. For citations to sites in the upper Yellow River area where gold earrings have been recovered, refer to Chapter One of this study, note 34.

early examples of bridle frontlets. This site suggests that, while Shang penetration into this region had been achieved by the middle centuries of the second millennium B.C., there were localized funerary practices and objects that coexisted alongside those associated with the dynastic tradition of the Zhongyuan.

The Beijing region has been identified as a "borderline" between Shang civilization and regions to the north identified with the Lower Xiajiadian culture.⁶ Certain material from Pinggu xian may be indebted to this northern tradition; the gold jewelry from the Beijing site has distinctive fan-shape terminals that parallel the style found on bronze earrings from Xiajiadian sites.⁷ The Shang mirror introduced in the previous chapter and reportedly found in northern Hebei may also be related to this culture. With the advent of Zhou rule and the establishment of the Yan capital of Ji, in the vicinity of modern Beijing, a fuller record of the cultural diversity within this region emerges.

1. Sites of the Western Zhou Period

A considerable number of sites have been identified with the early history of the Yan state; the majority of these excavations consist of burials dating to the early and middle Western Zhou period. Many of the Yan tombs parallel the earlier site at Pinggu xian in their inclusion of both ritual vessels and a variety of smaller objects, such as weapons, horse fittings, ornaments and disks. While many of these latter bronzes can be associated with objects originating in northern cultural regions, the bronze vessels, some bearing inscriptions that name the nobles of Yan, relate closely in style to those manufactured to the south. Jessica Rawson has observed that the Yan bronze vessels represent the products of a region that "was no provincial outpost but an important section of the state in close contact with the capital."⁸

These political and aesthetic ties are clearly manifested by the appearance of many Zhou vessels at sites in the Beijing district, as well as in areas even farther to the north. A *yu* vessel bearing the name of the marquis of Yan, for example, was recovered in the Kezuo district of Liaoning province,⁹ suggesting that the influence of this state extended over a considerable area along the northeastern frontier. While these vessels attest to Yan's position as an important ducal territory, other excavated objects document localized traditions that remained apart from the Zhou culture. Most significant to the present study are the burial practices involving the interment of variously sized bronze disks and buttons. It would appear that these objects were created as a funerary assemblage; perhaps they were polished before being placed around the deceased in an attempt to perpetuate their reflective power within the precincts of the dead.

6. Kwang-chih Chang, *Shang Civilization* (New Haven; London: Yale University Press, 1980), p. 294.

7. Lin Yun compares the jewelry style from Pinggu xian with a comparably fashioned earring from the Xiajiadian site of Xiaoguanzhuang, Tangshan xian, in Hebei (Lin Yun, "A Reexamination," p. 249, Fig. 50:8, 9). A fragment of a bronze earring, also possessing the fan-shaped form, was recovered in the Beijing district from a site identified with the Lower Xiajiadian culture at Liulihe ("Beijing Liulihe Xiajiadian xia ceng wenhua muzang," *KG* 1976 (1), p. 60, Fig. 4:2).

8. Jessica Rawson, *Ancient China: Art and Archaeology* (New York: Harper and Row, 1980), p. 100.

9. The Yan Hou yu, found in 1955 at the site of Machanggou in Kezuo xian (*Wenwu Cankao Ziliao* 1955 (8):16-27), is examined in relation to the character of the Yan bronze tradition in *The Great Bronze Age of China*, p. 200.

The early history of the mirror in northeastern China is closely related to the production of these circular bronze ornaments. By the Eastern Zhou era, the mirror would have attained the status of a unique object within the Chinese bronze repertory. However, the individuality of the mirror—in its typology and decoration—may not have been as significant during its initial stages of development. Burials in Hebei, Liaoning and Inner Mongolia suggest that the article identified as a “mirror” in the archaeological literature was one category of disk-shaped object created, along with others, for use in ceremonies and funerary rites. The precedents for these practices may ultimately be traced back to the Siberian region, where looped disks had flourished, in congress with other small bronze objects, in the second millennium B.C. The Yan region shared these traditions with areas to the north; it is, therefore, not surprising that this Chinese state would play a role in the development of the mirror during the later Eastern Zhou period.

a. Fangshan Liulihe

An insight into the stylistic variety of bronze disks found within Yan burials is offered by objects recovered from the important cemetery site at Liulihe in the Fangshan district of southwestern Beijing, which was first excavated in 1972. Typical of the burials associated with this complex is M52, a tomb of stepped construction whose main occupant was interred with both bronze and ceramic vessels, as well as weapons and bronze disks¹⁰ (Fig. 10). The remains of a single sacrificial victim and several animals were also recovered here. The disks, seven in number, were grouped within the excavation report into three formal categories. Six of these objects were recovered from the outer ledge of the burial. Half of these were classified as convex disks with bar handles along their backs, while the remaining three were described as openwork objects with raised central knobs. The seventh example (M52:25) appeared to have been placed on the body of the deceased. This object was described as a flat disk with a central boss and two small handles. Measuring 19.3 cm in diameter, it was found with several weapons; perhaps these objects had originally been suspended together from a belt or girdle.

The bronze disks from M52 are referred to collectively as “ornaments”; none are specifically assigned names on the basis of function or style. However, the disk found on the body of the occupant may be a predecessor to the object designated by the name “mirror” in the later Zhou period. In the following chapter, a decorated bronze, identified as a mirror, will be introduced from a site in lower Hebei associated with the Zhao state.¹¹ This mirror was found in nearly the identical position on the body as the example from Liulihe. It was also discovered in the company of a bronze knife.

The practice of suspending mirrors from the waist is documented in the *Zuo Zhuan*, where the commentator Du Yu noted that the custom of wearing “girdle mirrors” had been popular among people, such as the Qiang, since “ancient times.”¹² Such girdles may have been belts fashioned with either convex disks that

10. “1981–1983 nian Liulihe Xi Zhou Yan guo mu di fajue jianbao,” KG 1984 (5):311–312, Fig. 3.

11. “Hebei Handan Baijiacun Zhanguo mu,” KG 1962 (12), p. 615, Fig. 5:21.

12. Du Yu, *Chunqiu Zuo zhuan yaoyi*, juan 11: Zhuang 21st year.

fastened at the back or circular bronzes with central loops that were threaded and suspended. A combination of both styles may also have been known in China. Belts with convex disks and mirrors together have been recovered from Scythian sites dating to the 8th c. B.C.¹³ Examples of small, curved disks were found on the body of the sacrificial victim from a Liulihe burial (M22) that is contemporary to M52.¹⁴ It appears that the person was interred with strips of small round bronzes suspended from the body. A bridle frontlet was also found at the victim's waist, suggesting that these straps of bronze disks may have originally served as harness fittings. The custom of placing horse trappings with attendants occurred at a number of burials in central China associated with the appearance of the mirror in the Eastern Zhou period. The practice of including a specific type of openwork bridle ornament in these tombs will be discussed in detail in the following chapter; this object played an important role in the formal evolution of the decorated mirror in the early Warring States period.

Shang period burials associated with the Lower Xiajiadian culture have been excavated at Liulihe,¹⁵ indicating that this area had associations with a northern cultural tradition prior to the establishment of the Yan cemetery complex here. The inclusion of various circular bronze objects within the Western Zhou burials may have been the continuation of localized practices in this region whose origins predated the period of Wu Wang. This is strongly suggested by early Zhou burials in the northern metropolitan district of Changping, which are contemporary to those at Liulihe. A Shang period site at Xueshan in Changping has been identified with the Lower Xiajiadian culture¹⁶ and burials in the area dating to the succeeding period offer evidence of the continuing strength of this tradition within the emerging "Yan culture."¹⁷

b. Changping Baifu

To date, the most significant early Western Zhou excavations in the Changping district have taken place at Baifu, where two particularly rich burials have yielded bronze disks that closely compare with those found at the Yan cemetery in Liulihe. The burials at Baifu display a vast array of these circular bronzes; included within the assemblages are disks tentatively described, on the basis of their typology, as "mirror-like" objects. Two small (9.9 cm and 9.5 cm) undecorated examples, with a central bar handle and slightly convex body, were recovered from among the inventories of the two wood-constructed tombs, known as M2 and M3.¹⁸ One "mirror" was found in each burial, unearthened amid a substantial group of weapons, bridle frontlets and other circular bronze disks. The latter objects were the most common furnishing in the two tombs; a combined total of 145 examples were reported.

Both mirrors from Baifu were recovered among a group of objects that had been assembled in the upper corner of the burial chambers. In each case, the "mirror"

13. Karl Schefold, "Der skythische Tierstil," *Eurasia Septentrionalis Antiqua* 12 (1938), p. 32, Fig. 36.

14. "1981-1983 nian Liulihe," p. 311, Fig. 4.

15. "Beijing Liulihe," pp. 59-60.

16. *Ibid.*, p. 60. The excavation of a Lower Xiajiadian site at Xueshan is noted, but no published report is cited.

17. A discussion of Yan culture is found within the excavation report for the burials at Baifu (Changping xian), entitled "Beijing diqu de youyi zhongyao kaogu muzang," *KG* 1976 (4):248-249.

18. *Ibid.*; the "mirror-like" objects are discussed on page 258.

was, as noted above, found with a variety of other circular objects. Five styles, excluding those considered as mirrors, were identified among these bronze disks. One style, featuring a small central knob, resembled the example from M52 and would certainly suggest itself as another typological predecessor to the later Zhou mirror. Within assemblages such as those excavated at Baifu, it is impossible to clarify the distinctive function of one type of disk from another or to distinguish the "mirrors" from the vast array of similarly fashioned bronzes. It is noteworthy, however, that He Tangkun has specifically identified the "mirror-like" objects from Baifu as *yangsui* or *specula*;¹⁹ it is indeed possible that certain circular bronze disks were utilized as firemakers. The relationship between the mirror and the *yangsui* becomes more readily identifiable in the Eastern Zhou period, as will be discussed in the fifth chapter of the present study.

While He's identification is certainly credible, the paucity of evidence on the specific functions of these various disks allows only for the most tentative of attributions. At present, it appears more prudent to situate these objects together and regard them as a type of burial panoply. The occupant of M2 was, for example, also interred with over fifty small bronze buttons around the lower legs; presumably these had been affixed to a pair of boots or the hem of a burial garment. This further suggests that an emphasis on the circular bronze form was the primary concern here; the disk later defined as a mirror was created to participate within a ritual context that called for numerous styles of similarly shaped objects.

In contrast to the burial goods from M52 at Liulihe, few bronze vessels were found among the objects unearthed at Baifu; only six examples were recovered between the two tombs. The paucity of ritual vessels and the proliferation of the small bronze disks suggest that the occupants of the Baifu tombs may have been somewhat more removed from the sphere of Zhou tradition than the individual buried at M52. Perhaps the more northerly location of the Changping district kept its residents in closer contact with the Xiajiadian culture beyond the Yan territories, in regions of modern Inner Mongolia and Liaoning. Important excavations in the Liao Valley indicate that from the late Western Zhou dynasty to the era of the Warring States, bronze disk assemblages were an important aspect of the funerary practices in the region. This suggests that the creation and use of mirror-like objects in the northeast occurred throughout a significant portion of the Zhou period.²⁰

B. The Mirrors of the Liao Valley

1. Disk Assemblages from Ningcheng Nanshangen

Two stone chambered burials (M101 and M102), excavated at Nanshangen in the Ningcheng district of Inner Mongolia, contained circular objects whose forms resemble those discovered in the Yan burials introduced above. A disk with a central bar handle and raised outer rim, measuring 7.8 cm in diameter and identified as a mirror,

19. He Tangkun, p. 174.

20. For a comprehensive survey of the mirrors and "mirror-like" objects that have been recovered from Zhou sites in the northeast, refer to Zhang Xiyong, "Shilun Dongbei diqu xian Qin tongjing," *KG* 1986 (2):163-172.

was recovered at M102 alongside the skeletal remains. The mirror appeared to have been placed with several bronze knives and smaller disks in the vicinity of the occupant's waist, suggesting a practice similar to that identified at M52 in Liulihe. Also of importance from M102 was a bone plate, discovered in the burial chamber, which displayed incised pictorial decoration. The object featured depictions of horse-drawn carriages, stags and a human figure with a bow and arrow. As this site has been dated from the late Western Zhou to early Spring and Autumn period, these images provide an early example of the new styles in representation that were emerging along China's northern frontiers. Animal depictions were particularly characteristic of this new pictorial vocabulary, which was strongly influenced by the cultural traditions of Siberia and western Asia. During the initial excavations at Nanshangen, tombs dating to the later Spring and Autumn period were discovered that contained plaques and weapons decorated with horses and birds. While this animal imagery did not appear to be used as mirror ornament in the Liao valley, it does become extremely significant within the so-called "Ordos mirror" tradition to the west. Objects of this type constitute a second important northern precedent for the Chinese mirror and will be discussed in detail in the later portion of this chapter.²¹

M102 is located only 120 meters from the larger contemporary burial designated as M101. This latter burial contained over 500 objects; more than half of the funerary goods were bronze disks or buttons.²² Two varieties of objects with central bosses were among the disks; those that are flat have been classified as mirrors, while those with convex bodies were simply labelled as "lid-like objects." The two mirrors had diameters of 6.6 cm and 8.4 cm, while the eight "lids" were slightly larger, measuring from 10.5 cm to 11.3 cm. These distinctions become increasingly blurred as one surveys the inventory of nearly 300 circular bronzes, which include examples with perforations at the outer rim, various openwork styles, flat plaques with no means of attachment and a variety of smaller convex buttons. As noted with the bronze disk assemblages at Baifu, it is impossible to particularize the "mirror-like" object from the other bronze disks; it is far more important to recognize the importance accorded such objects within this cultural tradition.

2. The Decorated Mirrors in the Lower Liao Region

While bronze disks and buttons, such as those identified at Nanshangen, occur widely in Zhou period burials throughout the northeastern territories, the most important sites in this region for the study of the early Chinese mirror are a group of burials from the lower Liao valley of modern Liaoning province. Decorated bronze disks, identified as mirrors, have been recovered from several Eastern Zhou period sites in this region. The presence of surface ornament distinguishes these bronzes from the examples introduced above and offers the opportunity to examine the role of decoration on objects classified as reflectors. In addition, the ornamental patterns chosen for these bronzes hints at the continuity of traditions that may be traced back to the decorated mirror styles of the second millennium B.C.

21. "Neimenggu Ningcheng xian Nanshangen 102 hao shiguomu," *KG* 1981 (4), p. 306; "Ningcheng Nanshangen yizhi fajue baogao," *KGXB* 1975 (1): Fig. 19:4, 5; Fig. 20:3.

a. Chaoyang Shiertaiyingzi

Ornamented mirrors from Liaoning were first identified in 1958, with the excavation of three burials at the site of Shiertaiyingzi in Chaoyang county.²³ The stone chambered tombs, similar to those from Nanshangen, contained a total of five decorated circular objects identified by archaeologists as mirrors. These bronzes had been buried with a distinctive style of petal-shaped dagger that has been found at sites over an extensive area of China's northeastern frontier. M1 at Shiertaiyingzi contained two of the objects classified as mirrors.²⁴ Both examples measured 20.4 cm in diameter and were fashioned as convex disks with small bar attachments on the reverse side (Fig. 11). Stylistically, these disks were larger versions of a type of object widely encountered in the burials discussed previously from Hebei and Inner Mongolia. As this form of circular bronze differs in its typology from that associated with the later Chinese mirror, it is usually identified only as a "round ornament." The shape of the bronzes from M1 suggests that they were affixed to a surface, perhaps an article of clothing, and displayed with the convex face pointing outward. They were discovered resting against the head and feet of the occupant. Their function as reflectors is suggested by the placement of the ornament. A pattern of L-shaped and triangular forms is not cast over the entire face of the disk, but reserved for a band that encircles the outer rim. Therefore, the central portion of the object remains undecorated, hinting at a deliberate effort to emphasize this smooth, plain surface.

Two other examples of this type of mirror, nearly identical in size and style, were excavated from the neighboring burial of M2; they were reportedly recovered from locations in the burial chamber that parallel those associated with the objects from M1.²⁵ The fifth example of a mirror from this site, possessing a significantly different appearance, was found at a partially destroyed grave that was designated as M3.²⁶ The mirror was discovered amid earth and debris, leaving little chance to salvage any archaeological context. This object, with a diameter measurement of 22.5 cm, possessed three small loops along the edge of its decorated face (Fig. 12). It would appear that these loops were to be threaded and the mirror suspended with the ornamented side facing outward. The decoration as well as the typology differs from that of the convex disks; the surface of the mirror from M3 is completely devoted to an overall pattern featuring bold zig-zag bands that enclose small compartments of densely executed striations. This decorative style stands apart from the bronze ornamentation associated with the Zhou tradition. It may be better situated within a legacy of linear patterning that first appeared on decorated mirrors in the preceding millennium.

Evidence now suggests that the styles that characterized the earliest Chinese mirrors remained viable in northern regions throughout the Bronze Age. Mirrors displaying renditions of the "leaf-vein" pattern found on the Anyang examples have

22. "Ningcheng xian Nanshangen de shiguomu," *KGXB* 1973 (2):27-38.

23. Zhu Gui, "Liaoning Chaoyang Shiertaiyingzi qingtong duanjian mu," *KGXB* 1960 (1):63-71.

24. *Ibid.*, pl. 1:2, pl. 4:2.

25. *Ibid.*, p. 64.

26. *Ibid.*, p. 70, pl. 6:2.

been excavated from Eastern Zhou sites in Jilin province.²⁷ The discovery of the Jilin mirrors indicates that the use of these "linear" designs, which may have originated as solar symbols within regions of Siberia, persisted over a considerable period of time in the far northeast. Examples of similar patterns on mirrors from Korea may extend the stylistic continuum even farther eastward. Won-Yong Kim has cited several late Bronze Age examples of decorated Korean mirrors with imagery that relates to the striated linear patterns found on the mirrors from both M3 at Shiertaipingzi and the sites in Jilin.²⁸ The Korean examples were cast with loops at the outer edges of the decorated surface in a manner resembling the Liaoning mirror. Perhaps the Liao valley served as a transmission point for the dissemination of decorated mirrors into the Korean peninsula and ultimately on to Japan.²⁹ The perpetuation of this linear style may have spanned as much as two millennia; one of the Korean examples cited by Kim features a design that resembles the star pattern found on the very earliest of the decorated mirrors from Qinghai.³⁰

The five bronze disks from Shiertaipingzi raise important issues regarding the definition, function and ornamentation of objects identified as mirrors. The two types of decorated bronzes bearing this classification are markedly different in style and, in all likelihood, usage. The convex "mirrors" appear to be part of the broader category of curved disks and buttons that were attached to the clothing. These objects were usually executed in multiple numbers and presumably worn together. The "mirror" from M3 appears to have been suspended rather than affixed, with the smooth surface facing inward. This mirror's overall decorative pattern contrasts with the thin band of imagery that characterizes the other style. It is apparent that the plain surface was to be separated from the ornamental face. It was impossible, however, to ascertain any contextual information regarding the mirror from M3. A fuller archaeological record for all of these bronze disks was fortuitously provided by the excavation of a cemetery complex in the Shenyang area in 1965.³¹ Material unearthed here provides an important record of the diversity of functions and forms associated with mirror-like disks in this region.

b. Shenyang Zhengjiawazi

Fourteen tombs have been excavated at the site of Zhengjiawazi in the southwestern suburbs of Shenyang. The most richly furnished of the published burials is M6512, which contained the remains of a single occupant who was interred with an extensive array of bronze disks and buttons (Fig. 13).³² The preponderance of these objects recalls the burial furnishings from Baifu and Nanshangen. The placement of certain grave furnishings at M6512 also compares with the find location of the convex bronzes from Shiertaipingzi. The individual buried in M6512 was literally surrounded by circular bronze objects at the time of interment. Two large disks,

27. "Jilin Huadian Xihuangshantun qingtong duanjian mu," *Dongbei kaogu yu lishi* (1) 1982, p. 149, Fig. 6:13; "Jian faxian qingtong duanjian mu," *KG* 1981 (5), p. 470, Fig. 2:1, pl. 8:4.

28. Won-Yong Kim, "Bronze Mirrors from Shih-erh T'ai Ying-tzu, Liaoning," *AA* 26:3/4 (1963):207-214.

29. Higuchi, *Kokyō*, p. 37.

30. Kim, p. 212, Fig. 7: bottom. This mirror, according to Kim, was excavated from an unnamed site in North Korea.

31. "Shenyang Zhengjiawazi de liangzuo qingtong de dai muzang," *KGXB* 1975 (1):140-156.

32. *Ibid.*, p. 142, Fig. 3.

resembling those from M1 and M2 at Shiertaiyingzi, were placed at the occupant's feet and on the head. Between these objects, along the lateral axis of the body, were four smaller bronzes of similar form. The excavation report notes that all of these disks retained hemp encrustations that suggest that they had been affixed to a burial garment.³³ A large number of convex buttons were recovered around the lower portion of the skeletal remains. The excavators indicate that these objects were originally fastened onto leather boots,³⁴ a practice that suggests a context for the small bronzes found in a similar position at M2 in Baifu.

In addition to the various disks and buttons worn by the deceased, other circular bronzes were placed in the vicinity of the corpse. To one side of the skeletal remains were a substantial array of horse fittings, including bridle ornaments, cheekpieces, harness buttons and large, flat disks whose function could not be conclusively identified. On the opposite side of the burial chamber there were 130 additional convex buttons, perhaps originally placed over the remains of a sacrificial animal. Two daggers, their blades protected within decorated bronze sheaths, had been positioned above the occupant's head. A single ornamented disk (M6512:3), identified in the archaeological report as a looped mirror (Fig. 14), was discovered beneath the daggers. In its form and decoration, this object closely resembles the mirror from M3 at Shiertaiyingzi. The mirror from M6512 was considerably smaller, however, measuring 8.8 cm in diameter and possessing only two loops cast near the outer rim of the decorated surface. The pattern on the mirror was a simpler version of the zig-zags and striations found on its counterpart from M3. When discovered, the mirror at Zhengjiawazi was positioned with its ornamented surface facing upward.

The decorative pattern on the mirror surface also resembles the ornamental motifs cast on the bronze sheaths that covered the blades of the daggers. The visual relationship between these objects suggests that they belonged together; perhaps they were worn or carried as an ensemble. The discovery of bronze mirrors and weapons in close proximity has previously been noted from sites in Hebei and Inner Mongolia. In all of these cases, a single example of a bronze disk with a loop or loops on its surface was found with material objects. It could be postulated that the presence of decoration differentiated these objects from other circular bronzes; perhaps they enjoyed a special function as a symbolic shield or as a badge of rank. An association between the decorated mirror and bronze weapons may have originally been intended within M3 at Shiertaiyingzi; in all likelihood, the bronze disk was buried with one of the distinctive daggers associated with this region. This is suggested by the recent publication of a third example of a looped mirror with zig-zag surface patterns. Excavated in 1982 from another site to the south of Shenyang, in the district of Benxi, the mirror was recovered alongside a dagger resembling those from M6512 at Zhengjiawazi.³⁵

Within the excavation report for the cemetery site at Zhengjiawazi, the authors note that the individuals buried there appear to have been an ethnically mixed people whose heritage can be related to groups in both Siberia and North China.³⁶ In

33. *Ibid.*, p. 146.

34. *Ibid.*, pp. 147–148, Figs. 8, 9.

35. "Liaoning Benxi faxian qingtong duanjian mu," *KG* 1987 (2):181–182.

36. "Shenyang Zhengjiawazi," pp. 153–154.

a more recent study, Jin Fengyi associates this site, as well as the previously discussed bronze disk burials in the Liao valley, with the Upper Xiajiadian culture and a population known as the Dong Hu ("Eastern Hu").³⁷ This latter identification, however, must be regarded with considerable caution. According to Jaroslav Průšek, "the name Hu seems to have been a general term of the period, not the name of a specific people;"³⁸ he argues that textual evidence indicates that the designation was geographical rather than ethnic.³⁹ While the Hu became synonymous with a group known as the Xiongnu in the early imperial period, it would appear that the Chinese clearly distinguished these populations in the Zhou period.⁴⁰ The Xiongnu, who will be discussed in the second portion of this chapter, were associated with the grasslands of the upper Yellow River to the northwest.

While Jin's categorization of distinctive burial habits in the Liao valley is unquestionably useful,⁴¹ it nevertheless remains extremely difficult to associate these practices with a particular ethnic group. In addition, while there is validity in asserting the regional specificity of these sites, it is equally important to acknowledge that the Liao valley dwellers shared various objects and practices with groups whose influence extended over a considerable area of China's northern frontier. The burial of looped, circular bronze disks, documented at Bronze Age sites from the Korean peninsula to the Yenisei valley, serves as a significant example of the potentially wide distribution of common traditions.

To date, archaeological evidence for the appearance of bronze assemblages in the northeast has provided an exceptionally complete record for the presence of the mirror along China's borders; from this material, it is possible to suggest the precedent for certain practices associated with the appearance of this object in the Zhongyuan, such as the coeval burial of various types of circular disks and the interment of reflective bronzes with horse fittings and weapons. Scientific excavations in other regions of the northern frontier have yielded less extensive evidence of mirror use in the Zhou period, although it is possible to associate areas to the west of the Liao valley with a corpus of mirrors distinguished by their animal decoration. These objects—traditionally known as "Ordos mirrors"—form the basis for the second portion of this chapter.

37. Jin Fengyi, "Xiajiadian shangceng ji zushu wenti," *KGXB* 1987 (2):201, 206.

38. Jaroslav Průšek, *Chinese Statelets and the Northern Barbarians: 1400–300 B.C.* (Prague: Academia, 1971), pp. 224–225.

39. *Ibid.*

40. Průšek suggests that the frequent transposition of these designations in Han period sources relates to the increasing use of a more generalized nomenclature to describe northern populations (p. 225).

41. Jin (pp. 200–206) identifies several practices, such as the inclusion of dogs in burials and the covering of the face and skull of the corpse with shells or fabric, with the Upper Xiajiadian culture and the Dong Hu population.

II. “Ordos Mirrors”: Issues of Cultural and Geographic Identification

Although it is indisputable that the Yellow River played a prominent role in the history of ancient Chinese civilization, this distinction is reserved for its lower course; the great loop of its upper portion to the north encircles a region whose early history and culture is considerably more obscure. This area is known in the West as the Ordos, which derives from Baotou, the name given the region by the Chinese. The latter designation is itself derivative; it is actually the sinicized version of the Mongolian term “Baoketu,” which translates as “the place having horse stables.” This very phrase suggests a long-established association between this region and populations whose culture and economy were significantly affected by the horse and the institutions of nomadism.

While scientific archaeology in regions of the upper Yellow River began only with the founding of the People's Republic, the designation of “Ordos” has been in the art historical vocabulary of the West since the early decades of this century. At that time, quantities of distinctive bronze weapons, ornaments and fittings, often decorated with images of animals, appeared in European museums and art markets. Soon to be collectively known as “Ordos bronzes,” these objects had been procured by dealers at trading posts and missionary villages along a vast stretch of China's northern frontier.⁴² Little – if any – information was ever retained on the actual find locations; therefore, in the case of these unprovenanced objects, the term “Ordos” functioned as stylistic trope rather than a meaningful geographic designation.

Since 1949, however, an impressive amount of material has been excavated in the upper Yellow River region and it is to these objects that the term “Ordos” rightfully applies. There remain, however, certain bronzes whose traditional association with this region has continued within the art historical literature; a notable example involves a group of so-called “Ordos mirrors.” These objects, distinguished by zoomorphic imagery in thin, thready relief, entered into collections in Japan and

42. In the years immediately following World War I, groups of bronzes, said to have been collected “near the Great Wall” in Inner Mongolia, were purchased and exhibited by both the British Museum and the Musée Cernuschi in Paris. Karl Jettmar offers a detailed historical analysis of the procurement of these “Ordos bronzes” in Chapter Ten of his survey, *The Art of the Steppes* (New York: Crown, 1967). In the 1920's, interest in this material extended to both museums and private collectors; according to Jettmar, this increased demand in Europe encouraged wide-scale looting, which resulted in the destruction of invaluable archaeological information as “grave-diggers hastened to meet the demand to the best of their ability” (p. 157). The mirrors introduced in this portion of the chapter were secured under these conditions. Therefore, any information regarding their provenance exists only in records based on verbal accounts or the later attributions of scholars or collectors. The term “Ordos bronzes” was introduced by E. H. Minns in an article entitled “Small Bronzes from Northern Asia,” in *Antiquaries' Journal* (vol. 10 (1930):1–21); its usage derived from the provenance most commonly assigned to the object by Chinese dealers. Three years later, when J. Gunnar Andersson organized an exhibition in Stockholm featuring material collected “along the Sino-Mongolian borderland,” he borrowed Minns' designation and published the objects as “Selected Ordos Bronzes” (*BMFEA* 5 (1933):143–154). This work, followed by Viktor Griessmaier's catalogue, *Ordos-Bronzen* (Vienna: Krystall, 1936), established the use of this descriptive phrase within the scholarly literature.

the West during the 1920's and 30's. The examination to follow will consider these unprovenanced objects in light of relevant excavated evidence. By situating them within a more comprehensive cultural context, it is possible to gain additional insight into the importance of northern bronze traditions to the origins of the Chinese mirror.

A. Bronze Traditions Along the Upper Yellow River

The nomadic lifestyle that transformed the Asian steppelands in the course of the late Bronze Age has become virtually synonymous with the Ordos region. However, archaeological discoveries along the upper course of the Yellow River in areas of modern Shaanxi and Shanxi provinces suggest that this area had been occupied earlier by settled agricultural communities. Excavations here have yielded a substantial number of Anyang period objects that attest to the coeval use of Shang ritual vessels and material such as gold jewelry, horn-shaped headdresses and animal-headed knives and implements. These latter objects suggest contact with regions to the north and reflect the duality of cultural traditions that has been previously identified with the burial site at Pinggu xian in Hebei province. Shang oracular inscriptions cite various groups that were associated with settlements along the upper course of the Yellow River in the Anyang period;⁴³ the most northerly reaches of this region were probably inhabited by relatively independent states, who were initially stimulated by Shang traditions but had attained a degree of cultural autonomy by the final centuries of the second millennium B.C.⁴⁴

The farming settlements in the lower Ordos steppes would, however, undergo considerable change in the millennium to follow. For example, Shang period excavations along the Yellow River at sites in the districts of Suide and Baode have yielded bronze vessels and jades that attest to Anyang influence; these objects appeared to exist alongside weaponry and ceremonial paraphernalia of a more localized character.⁴⁵ The cultural transition that occurred in this region is well documented by comparing these earlier sites to those unearthed in the neighboring district of Shenmu. The latter excavations, dating from the Eastern Zhou period, document the presence of a new population in the Ordos by the late Bronze Age.⁴⁶ In contrast

43. For a general introduction to the major *fang* or "alien states" that figure in Shang inscriptions, consult Chang, *Shang Civilization*, pp. 248–259. Ethnogeographical reconstructions of the Shang state situate several groups in the vicinity of the northerly course of the Yellow River. One of the most frequently cited of these states is Tufang, first mentioned in inscriptions datable to the Wu Ding period (Chen, *Yinxu*, pp. 272–273, and Li, *Yindai dili*, p. 61). This group was identified as living to the east of Zhi, a Shang vassal state in Shanxi, with whom Tufang frequently clashed (Chen, p. 272). To the north of these groups, possibly along the lower reaches of the Ordos, were the territories of Guifang and Gongfang. Guifang appeared to be the more threatening of the two territories; its eventual subjugation by Wu Ding is documented by two hexagrams in the *Yijing* (No. 93 (Jiqi) and No. 94 (Weiqi)). Inscriptions suggest that Gongfang submitted more readily to Anyang control (Chen, pp. 273–274). In all likelihood, the campaigns against these groups represented the northernmost extension of Shang political and cultural influence in this region.

44. This characterization, based on inscriptions and regional bronze styles, has been proposed by David N. Keightley in "The Late Shang State: When, Where and What?" in *Origins of Chinese Civilization* (Berkeley; Los Angeles: University of California Press, 1983), p. 536.

45. For excavations reports on these sites, refer to "Shaanxi Suide Yantoucun" *WW* 1975 (2):82–85, and "Baode xian xin faxian de Yindai qingtongqi," *WW* 1972 (4):62–64. In the latter report, the authors suggest that the Baode region may have belonged to the territory of Guifang during the Shang period (see note 43).

46. "Shaanxi Shenmu xian chutu Xiongnu wenwu," *WW* 1983 (12):23–30.

to material from Baode and Suide, which revealed a significant debt to Shang practices, the objects unearthed at Shenmu find little precedent in the Chinese tradition. Instead, the antecedents of this material, which includes plaques, disks and figurines depicting various animals, are more appropriately situated within the powerful sphere of the Scythian culture to the west.

The Shenmu sites are explicitly associated in the archaeological literature with a people known as the Xiongnu, a northern group whose appearance along the Chinese frontier has been documented within ancient historical accounts.⁴⁷ The richest source of material on the Xiongnu culture to date has been unearthed at Ordos sites in Inner Mongolia. A recently published compendium of excavated material from this region, entitled *Eerdou qingtongqi*, provides abundant evidence of the Xiongnu presence along China's northern borders from the late Bronze Age to the early imperial period.⁴⁸ The authors of this study, Tian Anjin and Guo Suxin, date the origins of this culture in the Ordos region to about the fifth century B.C. They suggest that another population – which the text collectively refers to as the Di – occupied these vast grasslands prior to the Xiongnu migrations.

The term “Di” has been traditionally applied to a confederation of northern groups, whose military clashes with Zhou statelets were first recorded in the eighth century B.C.⁴⁹ Scholars have, however, traced their earlier history in Chinese sources; several studies have argued that the Di were known in the Shang period as the Gui.⁵⁰ This latter group has been associated in the archaeological literature with Shang sites in the upper Yellow River region, notably those at Baode.⁵¹ Therefore, although it has been previously noted that the use of broad ethno-cultural designations is often inappropriate, it may be possible to cautiously associate the Di culture with the early history of the Ordos steppes. This relationship appears to gain credibility when evidence is examined that directly relates to the earliest mirrors cast

47. Sima Qian devoted the 110th chapter of the *Shiji* to a discussion of a group that he identified as the “Xiongnu.” The chapter actually presents an overview of a number of so-called “barbarian” peoples whose territories were associated with the northern borderlands, including the Di and the Quanrong (see note 60, following). In the West the Xiongnu were initially studied in terms of their relationship to the Huns (M. de Guignes, *Histoire générale des Huns, des Turcs, des Mongols et autres Tartares occidentaux* (Paris: n.p., 1756, vol. 1, p. 216). In our century, linguistic studies have challenged the long-standing association proposed by de Guignes and situated the origins of the Xiongnu in northern rather than central Asia (L. Ligeti, “Mots de civilisation de Haute Asie en transcription chinoise,” *Acta Orientalia* 1950 (1):142–144 and E. G. Pulleyblank, “The Consonantal System of Old Chinese,” *Asia Major* 1963 (9), p. 265). A more comprehensive treatment of the Xiongnu and their institutions is now available in the writings of Thomas J. Barfield; refer to his article entitled “The Hsiung-nu Imperial Confederacy: Organization and Foreign Policy,” *The Journal of Asian Studies* 41 (1981):45–61 and his recent monograph *The Perilous Frontier: Nomadic Empires and China* (Cambridge, Mass.: Basil Blackwell, 1989), chap. 2.

48. Tian Anjin and Guo Suxin, *Eerdou qingtongqi* (Beijing: Wenwu chubanshe, 1986).

49. The earliest reference to military activities involving the Di is presented in the *Bamboo Annals*, where an attack on territory belonging to the Duke of Jin is recorded for the year 729 B.C. (Fan Xiangyong (ed.), *Zhushu jinian guben*, Beijing: Renmin chubanshe, 1957, p. 36). In the following century, the Di were credited with invading the small state of Xing in Hebei; this expedition was reported to have occurred in the winter months of 662 B.C. (James Legge, *The Ch'un Ts'ew, with the Tso Chuen* [vol. 5 of *The Chinese Classics*] (Oxford: Clarendon Press, 1872), pp. 119, 123).

50. Wang Guowei, “Guifang, Kunyi, Xianyu kao,” *Haining Wang Jingan xiansheng yishu* 5: *Guandang jilin* 13 (1923):1–20; Meng Wentong, “Chidi Baidi dongqin kao,” *Yukong* 7 (1937):67–68; Průšek, *Chinese Statelets*, pp. 65–69. Tian and Guo (*Eerdou qingtongqi*, p. 197) cite Zuo Heng's more recent writing on this issue, which is essentially a recapitulation of Wang Guowei's position (*Xia Shang Zhou lunwenji* (Beijing: Wenwu chubanshe, 1980), p. 279).

51. “Baode xian,” p. 64.

in the Central Plains; their production, which may have been directly related to the increased cultural and political interaction between Zhou statelets and Di populations, will be detailed in Chapter Three. However, before examining the mirrors from Zhou foundries, it is necessary to consider those that are related by tradition or archaeology to the Ordos steppelands. These objects, with their distinctive surface imagery, provided an important prelude to the emergence of indigenous production in the Zhongyuan.

B. "Ordos Mirrors": Formal and Iconographic Issues

The group of decorated bronze disks, traditionally known as "Ordos mirrors," lack any substantive documentation to verify a common provenance or date. However, strikingly similar stylistic features do argue for their consideration as a related corpus. In their typology, these mirrors recall the small, knobbed disks from Anyang; it is the innovative animal ornament that distinguishes these objects from their predecessors. In both the choice of surface imagery and its execution in thread-like relief, the "Ordos mirrors" are closely related to examples recovered from Zhou period sites in Siberia, as well as from Soviet excavations along the Dnieper river near Moscow.⁵² The animal imagery on an "Ordos mirror" now in the collection of the Museum of Far Eastern Antiquities in Stockholm (Fig. 15),⁵³ for example, closely compares to that found on a well-known example unearthed in the Minusinsk basin of Siberia (Fig. 16).⁵⁴ It is noteworthy that this latter region has a long history of mirror production; the relationship between examples from Shang period sites and those from the Minusinsk basin has been discussed in the previous chapter. It would appear that again, in the Zhou era, this Siberian district would provide an important stimulus for the appearance of mirrors within Chinese territory.

The comparable Siberian and "Ordos" mirrors cited above both display a series of antlered stags, executed in thin, relieved lines and positioned surrounding the central boss. The mirror from Minusinsk is the larger (15 cm) and the animal forms, resembling those found on Siberian plaques and fittings, are rendered with considerable delicacy and attention to detail. The Stockholm mirror, with a diameter measurement of 8.9 cm, displays a more cursive treatment of the imagery – a fact that may indicate that this object was a copy based on a Siberian original rather than an actual product of this region.

Further evidence for the reproduction of Siberian imagery on "Ordos mirrors" is offered by a comparison of an unprovenanced example, formerly in the Moriya collection in Kyoto (Figs 17 & 18)⁵⁵ and an object in the Museum für Ostasiatische Kunst, Berlin, which was reported to be from an unspecified Siberian site associated

52. Examples of mirrors excavated by the Russian archaeologist G. Samokvasov in the Dniepr district were illustrated by Gregory Borovka in *Scythian Art* (New York: Frederick A. Stokes, 1928), pl. 30.

53. This mirror (MFEA registration number K11388) has not, to the author's knowledge, been previously published. Museum records indicate that it was collected by C. Eriksson, a Swedish missionary, and given to the Museum of Far Eastern Antiquities in 1929.

54. Borovka, p. 65, pl. 41.

55. Umehara Sueji, "Shu dai no kokyo," *Tohogaku*, 35 (January, 1968), Figs. 3b, 4.

with the Tagar culture (Fig. 19).⁵⁶ The Berlin example is the larger of the two, featuring a coiled tiger encircling the central loop. The animal is depicted in a militant pose, with its pincer-like jaws open, exposing two rows of serrated teeth encircling a triangular-shaped tongue. A delicate, pyramidal pattern outlines the animal's body, suggesting the texture of a furry coat. The interior of the tiger is filled with additional animal forms; six recumbent versions of the larger image and a seventh crouching beast are all encased within the body. The practice of depicting small animals within a larger creature was not uncommon in the Tagar and Scythian traditions. It has been noted that this style of imagery was thought to increase the power of the host animal, offering a visualization of collective strength and energy.⁵⁷

It can be argued that the style of imagery on the Berlin mirror inspired the similarly shaped beast on the object from the Moriya collection. The latter, however, appears as a crude copy next to the Siberian prototype; the "Ordos" tiger lacks the strength and skill of execution that distinguishes its northern counterpart. While retaining an aggressive posture, with its open pincer jaws and exposed teeth, the Moriya tiger is fashioned in a type of "shorthand," with its body rendered in a cursory, if not incomprehensible, manner. It can be suggested that the iconographical intent that informed the Siberian mirror has been lost on the "Ordos" copy. The recumbent creatures that were encased within the tiger's body on the Berlin mirror are reinterpreted here as a series of concentric half-circles that outline the interior of the animal; between these lunettes is a meandering pattern of C-curves, hinting at the curved bodies of the original, contained forms. The power that was gained by the inclusion of this representational imagery is obviously missing from this example, suggesting that its creators were somewhat removed from the traditions that valued this depiction.

The implied loss of the iconographic referent in these "Ordos mirrors" is also illustrated by an example in the Yale University Art Gallery (Fig. 20).⁵⁸ This mirror can be convincingly associated with the above examples by virtue of its typology, diminutive size (6.4 cm) and zoomorphic ornament executed in thin relief; while its surface imagery has no known iconographic parallel, the manner in which it has been rendered can arguably serve as an additional point of comparison. The surface displays a cursorily executed "stick-figure" who appears to be holding a weapon. Moving away from the figure in a clockwise motion, one encounters five indecipherable images of rectangularly shaped zoomorphs, whose renditions become larger and more elaborated as they develop around the prominent bar-shaped boss at center. This progressive figural enlargement is punctuated by the inclusion of a very small and cursory example of these box-like creatures that appears between the two largest images.

These baffling forms, with S-shaped designs on their surfaces and distinctive projections—a circle, three-pronged claw and angular hook—issuing from their

56. *Ausgewählte Werke Ostasiatischer Kunst* (Berlin: Staatliche Museen Preussischer Kulturbesitz, Museen für Ostasiatische Kunst, 1970), pl. 12.

57. Minns, *Scythians and Greeks*, p. 203, 238; *From the Land of the Scythians* (New York: Metropolitan Museum of Art, 1974), p. 102, pl. 8.

58. The mirror (1953.27.27) was registered as "a gift of Mrs William H. Moore." Documents now housed in the Far Eastern Department of the Yale University Art Gallery indicate that the donor purchased the mirror in 1931 from Edgar Gutmann, a Berlin art dealer.

bodies have been subjected to a variety of iconographic interpretations. Writing in 1932, Carl Hentze suggested that these were human figures, whose increasing elaboration served to represent the phases of the moon.⁵⁹ More recently, the images have been identified as dancing figures⁶⁰ or as birds.⁶¹ The lack of comparative material, however, makes it extremely difficult to offer any conclusive identification. It can be observed that the images are distinguished by their cursory treatment; we again encounter the type of representational "shorthand" that we have previously identified on the other "Ordos mirrors." This example offers further evidence that the makers of these mirrors were in all likelihood drawing inspiration from more elaborated imagery, whose compelling iconographic significance may have been relinquished in the process of their transmission.

In the course of this analysis, it is noteworthy that no archaeological evidence has been introduced from the Ordos region. Indeed, a mirror conforming to the stylistic parameters introduced above has yet to be published from a site in the upper Yellow River region. Tian and Guo's extensive documentation on Xiongnu burials have revealed surprisingly little evidence of mirror use. In the extensive inventories they cite from the late Zhou and early Han periods, only seven mirrors are reported. The surface decoration that distinguishes the examples introduced above finds no parallel here. These excavated objects — rightful claimants to the title of Ordos mirrors — are either undecorated or possess very simple linear designs. Therefore, at present, it would appear that the traditional "Ordos" corpus was not the product of the Xiongnu culture. These mirrors do, however, find an excavated parallel from a site in Henan province, well to the south of the region bearing their name; such a discovery, however, does not discount the possibility that this distinctive style of bronze disk did have its origins within a northern context.

C. The Appearance of the Decorated Mirror in Zhou China: The Cemetery Complex at Shangcunling

In 1957, a mirror was excavated in central China that possessed strong stylistic affinities with the Stockholm, Moriya and Yale examples. This important object, the earliest known decorated mirror datable to the Eastern Zhou period in the Zhongyuan, was unearthed from a tomb (M1612) at Shangcunling in Shan xian, a western county of Henan province (Figs 21 & 22).⁶² The mirror, 6.7 cm in diameter, was

59. Carl Hentze, *Mythes et Symboles Lunaires* (Anvers: Editions "De Sikkell," 1932), pp. 110–111.

60. George J. Lee, *Selected Far Eastern Art in the Yale University Art Gallery* (New Haven: Yale University Press, 1970), p. 9, pl. 8.

61. Mary Gardner Neill, *The Communion of Scholars: Chinese Art At Yale* (New York: China House Gallery, 1982), pp. 36–37.

62. Zhongguo kexueyuan kaogu yanjiu (ed.), *Shangcunling Guoguo mudi* (Beijing: Kexue chubanshe, 1959), p. 27, Fig. 21; pl. 40. Three mirrors were actually reported from the Guo cemetery site; in addition to the so-called "Ordos" example, a pair of undecorated mirrors, characterized by Li Hengqiu as belonging to the "Western Zhou style" ("Tongjing de yuanliu," pt. I, p. 45), was recovered from a small and sparsely furnished burial (M1650). These disks are illustrated in the excavation report cited above, p. 27; pl. 23:1, 2. A fourth object deserves mention as well. A knobbed, circular bronze, not specifically identified in the report (p. 27; pl. 38:13), may have been cast for reflective purposes. Li, noting that it has been cited in subsequent literature as a firemaker (*yangsui*) ("Tongjing," pt. I, p. 46), considers the disk to be a mirror. Regrettably, a thorough assessment of this object is dependent upon a fuller archaeological record than is currently available.

recovered from a modest burial within a royal cemetery site associated with the Guo kingdom, which had existed in this region until its ultimate destruction by the neighboring state of Jin in 655 B.C. The mirror must, therefore, predate the fall of Guo; the Shangcunling complex is usually dated from the late eighth to the early seventh centuries B.C. While the bronze objects recovered here have been characterized as displaying "strong ties with the late Western Zhou tradition in type and decoration,"⁶³ it has also been noted that the inclusion of a "small round mirror decorated on the back with crudely drawn tigers and a mountain horse, offers a glimpse of the nomadic culture in the Ordos region."⁶⁴

The mirror's imagery is executed in the thin relief style that does indeed associate it with the unprovenanced "Ordos mirrors" — although its presence here cannot be shown to have any direct association with the "nomadic culture in the Ordos region." However, a stylistic relationship to the mirrors discussed above is undeniable. The decoration on the Shangcunling mirror includes four animal figures — two tigers flanking a bird and a horse — positioned around a central, double-looped handle. The tigers possess features that parallel those found on the Moriya mirror. Pincer jaws, pointed teeth and bulging eyes are shared among the creatures, as are the C-curves that ornament the interiors of their bodies. The small horse has counterparts among plaques from sites of the Tagar culture in Siberia;⁶⁵ it is possible that these animal plaques provided the inspiration for certain mirror imagery. The bird on the Shangcunling mirror, for example, may offer an example of this. While similar depictions of beaked creatures with outstretched wings have been recovered from numerous sites in Siberia,⁶⁶ this style also appears in areas to the east. Bird plaques in this style were previously mentioned from a burial at Nanshangen in Inner Mongolia.⁶⁷ It is noteworthy that none of these birds resemble the images on the Yale mirror; however, a close examination of the tigers on the Shangcunling reflector does hint that perhaps their bulging eyes, clawed feet and curvilinear surface ornament may be shared with the creatures on the Yale University example.

Although the mirror from Shangcunling was recovered at a cemetery complex in Henan, evidence to date would suggest that it was not the product of a Chinese foundry. In the thirty years since its discovery, no comparable example has ever been reported from a burial in the Zhongyuan. Paralleling the earlier mirrors of the late second millennium B.C., the Shangcunling example stands apart from the dynastic bronze styles of its era. It can be suggested that the Shang examples and the mirror from M1612 shared an association with peoples who lived on the periphery of the dynastic state. The first chapter of this study introduced certain groups who may have been associated with mirror-using traditions originating in the north; their interactions with the Shang were a potential source for the earliest appearance of the mirror in the Central Plains. The nobles of the Guo kingdom also experienced

63. *The Great Bronze Age of China*, p. 252. A discussion of the stylistic properties of the Shangcunling bronzes is included within Jenny F. So's chapter on the design innovations of the Spring and Autumn period (pp. 251–269).

64. *Ibid.*, p. 252.

65. A variety of Tagar plaques, circular disks and weapons that feature images of horses are illustrated by Chlenova, pl. 25.

66. For Siberian examples of such bird imagery, refer to Chlenova, pl. 30:28–40; S. I. Rudenko, *Kultura naseleniya Tsentralnogo Altaya v skifskoe vremya* (Moscow: Akademia nauk, 1960), p. 286; Esther Jacobson, "Siberian Roots of the Scythian Stag Image," *Journal of Asian History*, 17 (1983), Fig. 26.

67. "Ningcheng Nanshangen," *KGXB*, 1975 (1), p. 137, Fig. 19:5, pl. 44:11, 12.

contact with northern peoples. Historical accounts document their successful campaigns against the Quanrong,⁶⁸ a "barbarian" population whose name figures in accounts of various attacks against the Zhou, including those that resulted in the fall of the Western capital in 771 B.C.

There is a considerable diversity of opinion concerning the ethnic and cultural origins of this group. Wang Guowei, in his pioneering study of ancient populations along China's northern frontiers, argued that the term "Quanrong" was a late Zhou designation for the Gui people.⁶⁹ This identification would suggest a link between the Quan and the residents of the Ordos grasslands. Wang's assertions have not met with universal acceptance, however; J. Průšek, for example, countered this association by proposing that the Quan were a localized community living in the northern Wei region. As the unwitting victims of a Zhou expansionist policy in their homeland, they were nevertheless cast as threatening "barbarians."⁷⁰ There are Anyang period oracular accounts concerning a group known as "Quan." While a number of scholars have associated the inscriptions with this later population,⁷¹ Wang denied the validity of this connection.⁷²

The Guo kingdom was located near territories that had previously been associated with bellicose groups, such as the Qiang. The "Western Qiang" were reported to be living in Henan during the Zhou period;⁷³ one scholar earlier in this century suggested that the Quanrong were actually the Zhou descendants of the people known to the Shang as the Qiang.⁷⁴ Such identifications are highly speculative; for the purposes of the present study, it is more prudent to suggest that the Quanrong, in a manner not dissimilar to groups living on the Shang borders, may have had contact with both the Chinese and contemporary cultures in regions to the north.

The mirror from Shangcunling was found in a small grave, suggesting that its occupant was an attendant rather than a member of the Guo elite. The interment of the mirror may also designate this individual as an outsider; it is conceivable that s/he belonged to a group such as the Quanrong and had become attached to the Guo court after their defeat. As in the burial of the mirror among sacrificial victims at Anyang, the object from M1612 may be associated with a specific activity involving the deceased. However, with such limited evidence, it is not yet possible to further associate the Shangcunling mirror with usage by members of a specific class, ethnic group or sex.

The discovery of an "Ordos mirror" at Shangcunling, in light of the absence of such objects from the archaeological record of the Xiongnu, requires that its ready

68. *Zuo Zhuan*, Min 2nd year; a second reference to a victory (Xi 2nd year) is recorded in the *Zuo Zhuan*, although it only refers to the defeat of the "Rong" at a site in northwestern Henan that has been identified with the Guo state (Průšek, p. 46).

69. Wang Guowei, "Guifang," p. 6b.

70. Průšek, *Chinese Statelets*, pp. 73–74.

71. Military clashes involving the Shang and a group identified in the divination records as the Quan have been cited by Chen Mengjia (*Yinxu*, p. 291) and Wu Ce (*Gudai shi: Yindai nuli zhi shehui shi* [Shanghai: Tangli chubanshe, 1949], p. 32). Other groups are also named with the Quan, including an enemy population known as the Jue (Chen, p. 294), as well as their allies, Fou (Chen, p. 293) and Qiang (Wu, p. 32). G. Haloun (see n. 74) associated the latter group with the Quanrong of the succeeding dynastic period.

72. Wang, "Guifang," p. 7b.

73. Lin Huixiang, *Zhongguo minzi shi* (Shanghai: Shangwuyin shudian, 1936), vol. II, pp. 114–115.

74. Gustav Haloun, "Zu J. J. M. de Groot: Die Hunnen der vorchristlichen Zeit," *Orientalistische Literaturzeitung*, 1922 (25), p. 436.

association with the unspecified “nomadic culture” of these grasslands be reconsidered. The appearance of this mirror in Henan may be better understood in terms of Guo contact with northern populations, such as the Quanrong, whose presence predated that of the Xiongnu on the Chinese frontier. While mirrors cannot be situated within the Ordos culture of these late Zhou warrior nomads, it may be possible to argue that the mirrors with zoomorphic imagery – as distinguished from the examples with linear ornament found at sites in the Liao valley to the east – did originate along the upper reaches of the Yellow River. Valuable evidence for this possibility was provided with the publication of a mirror from a burial in the Zhongning district of the Ningxia Autonomous Region. This object, which bears a striking resemblance to the earliest examples cast at Eastern Zhou foundries, gives the first archaeological evidence for the existence of mirrors on the Ordos steppes in the Spring and Autumn period.

D. Evidence from the Ningxia Autonomous Region: M2 at Zhongning Nidingcun

In November of 1983, the discovery of a group of bronze objects at Nidingcun, a village on the banks of the Yellow River in the Zhongning district, prompted an archaeological investigation that resulted in the excavation of two Eastern Zhou burials (M1 and M2).⁷⁵ While these were the first sites to be published from this area of central Ningxia, there is a considerable record of archaeological activity in other districts of this region. Numerous neolithic sites have been unearthed here, revealing influences from the Yangshao traditions of neighboring Gansu province, as well as those of the Qijia culture.⁷⁶ The latter association may be of particular significance to this study, as the earliest known Chinese mirror, introduced in Chapter One, was found at a Qijia site in nearby Qinghai province.

The majority of sites that attest to Ningxia's Bronze Age history have been unearthed in the districts of Tongxin and Guyuan.⁷⁷ These areas, located in the central and southern portions of the province, have yielded a number of burials associated with the Xiongnu. The contents of these tombs can be closely related to objects recovered from sites in neighboring Inner Mongolia, suggesting both a common cultural tradition and contemporary dates ranging from the late Warring States period through the Western Han dynasty. M1 and M2 at Nidingcun can be distinguished from these sites in two significant respects. The Zhongning district is located to the north and west of areas where Xiongnu burials have been identified; in addition, material unearthed at Nidingcun suggests that these tombs, whose

75. “Ningxia Zhongning xian qingtong duanjian mu qingli jianbao,” *KG* 1987 (9):773–777.

76. For a summary of Yangshao and Qijia sites, refer to the chapter on the Ningxia Autonomous Region in *Wenwu kaogu gongzuo sanshi nian* (pp. 154–156). More recent reports on sites associated with these cultural traditions include “Ningxia Guyuan Dianhe Qijia wenhua muzang qingshen jianbao,” *KG* 1987 (8):673–677 and “Ningxia Haiyuan Caiyuancun yi zhi mudi fajue jianbao,” *WW* 1988 (9):1–14.

77. “Ningxia Guyuan xian chutu wenwu,” *WW* 1978 (12):86–87; “Ningxia Tongxin xian Daodunzi Han dai Xiongnu mudi fajue jianbao,” *KG* 1987 (1):33–37; Ningxia Tongxin Daodunzi Xiongnu mudi,” *KGXB* 1988 (3):333–356.

contents compare to material associated with the late Spring and Autumn and early Warring States periods, predate those reported to the south.

Although the authors of the excavation report on M1 and M2 observe that these burials differ from those attributed to the Xiongnu,⁷⁸ they do not specify the ethno-cultural identity of the occupants. However, the weapons unearthed at Nidingcun may offer a clue to their owners' origins; close counterparts to these objects have been excavated at a Spring and Autumn period site that has been associated with the Di culture in Inner Mongolia. A burial (M1) excavated at Gongsuhao in the Yijinhualuo Banner has yielded material that Tian and Guo consider to represent the early phase of the Ordos bronze tradition.⁷⁹ Included among the objects unearthed at M1 were a dagger with a distinctive hilt in the form of two confronting bird heads, straight-edged knives with openwork terminals and an ax-head possessing a flaired blade.⁸⁰ It is possible to compare each of these weapons to examples from the Zhongning excavation.⁸¹ This evidence would therefore situate the two Ningxia burials, according to Tian and Guo's analysis, within the pre-Xiongnu bronze complex that characterized the Ordos culture in the middle Zhou period.

M1 at Nidingcun appears to have been a relatively modest tomb; fifteen objects – primarily weapons and small fittings – were unearthed at the site. A considerably more extensive repertory of grave furnishings was reported from M2, where 109 objects were recovered. While certain weapons and horse trappings closely resemble those from its companion site, M2 also contained an assemblage of ornamented objects that included bridle frontlets, convex disks and a bronze mirror. The latter (Fig. 23) was actually one of three bronzes designated as a mirror from M2; the others were undecorated, knobbed objects, whose small size (3.5 cm in diameter) suggests that they resembled buttons.⁸² The mirror bearing zoomorphic imagery was twice as large in size (7.4 cm), displaying two concentric registers of imagery surrounding a central boss.⁸³ The outer ring encloses six renditions of an animal identified as a tiger, while three recumbent creatures, cited in the excavation report simply as "wild beasts,"⁸⁴ fill the interior portion of the surface.

The presence of a mirror bearing animal imagery from a site on the Ordos border would certainly prompt comparison with those introduced above; it is important to note, however, that at least two centuries may separate these mirrors from the example found at M2. While the interest in zoomorphic representation unites all of these objects, the style and structure of the imagery does differ. While the "Ordos" mirrors articulated their animal forms through the use of thin outline, the images on the reflector from Nidingcun evidence considerably more attention to surface texture and detail. This contrast may reveal a transition in the cultural influences that informed the visual imagery of this region. Earlier in this chapter, the examples from Stockholm and Berlin were paired with closely related Siberian

78. "Ningxia Zhongning," p. 777.

79. Tian and Guo, pp. 203, 217–219.

80. *Ibid.*, p. 210: Fig. 1:4 (dagger); Fig. 1:8 (knife); Fig. 1:1 (ax-head).

81. "Ningxia Zhongning," p. 774, Fig. 3:1 (dagger); p. 776, Fig. 6 (left) (ax-head) and Fig. 7 (knives).

82. *Ibid.*, p. 774, Fig. 3:13.

83. *Ibid.*, p. 775, Fig. 4:9; pl. 1:9.

84. *Ibid.*, p. 775.

counterparts; these latter objects may have descended from the Yenisei mirrors of the second millennium B.C. The imagery on the example from M2, however, is more akin to bronze styles popular in northern China and the Zhongyuan in the sixth and fifth centuries B.C. This evidence would suggest that cultural interaction between the Chinese and northern populations increased in the course of the Spring and Autumn period; this fact is certainly well documented in the historical records of the Eastern Zhou period. The following chapter will introduce a group of Di origin, known as the Gaoluo, whose assimilation into the ducal state of Jin may exemplify the cultural environment that facilitated the reception of the mirror into the Central Plains.

As noted above, the mirror from M2 was interred with a variety of bronze weapons and fittings, in a manner reminiscent of the funerary assemblages discussed in the first portion of this chapter. In order to fully contextualize the disk identified as a "mirror" from the Ningxia site, it is necessary to examine other tomb furnishings whose typology and ornament relate to it. Ultimately, the early Chinese mirror would gain independence from this attendant panoply; however, in the initial period of indigenous production, vestiges of these northern burial practices persisted. Chapters Three and Four will discuss the close formal relationship that existed between the bronze mirror and a style of looped bridle frontlet known as a *danglu*. An important early category of Chinese mirror, distinguished by its double plate construction, was the result of the actual fusion of the flat bronze disk with an ornamented horse fitting. In light of these subsequent developments, it is therefore of particular significance that a number of objects identified as *danglu* were recovered with the mirror at Nidingcun.

This style of fitting is characterized by its loops, which are cast on one of the surfaces or around the edges; these protuberances serve to fasten the plaque onto the central portion of the bridle. The use of such frontlets had a considerable history in regions along China's northern frontier. An early example has previously been cited from a Shang burial in the Pinggu district of Beijing, whose date may precede the Anyang occupation;⁸⁵ in addition, these objects were reportedly unearthed with the "mirror-like" bronzes – identified by one scholar as firemakers – from the early Western Zhou burials at Baifu.⁸⁶ The *danglu* from M2 are divided into two stylistic groups. The first category is distinguished by its outline, which is suggestive of a human head and neck. The placement of a pair of eyes, cast on the reverse of the looped surface, serves as an additional physiognomic referent.⁸⁶ Those associated with the other style display ornamented surfaces that feature a pair of confronting birds;⁸⁷ this motif, common on Ordos bronzes of the Spring and Autumn period, has already been cited as appearing on the hilt of a dagger from this burial.

In all, ten *danglu* were reported from M2, indicating that these equine ornaments were accorded particular significance among the tomb's furnishings. The following chapter will introduce evidence for the coeval production and burial of *danglu* and bronze mirrors in the Zhongyuan. Circular in shape, these Zhou frontlets were cast with recumbent animal forms reminiscent of those on the mirror from M2.

85. Refer to note 4.

86. "Ningxia Zhongning," p. 775, Fig. 4:4; pl. 1:1.

87. *Ibid.*, p. 775, Fig. 4:3; pl. 1:8.

A group of decorated bronze disks, closely resembling the *danglu* recovered with early Chinese mirrors, were recently excavated from a site, dating from the late Western Zhou to early Spring and Autumn period, in the Fengxiang district of lower Shaanxi.⁸⁸ It is noteworthy that the Quanrong, discussed in relation to the mirror from Shangcunling, were thought to have been centered in the Fengxiang district.⁸⁹ Therefore, it is possible that the practice of funerary assemblages featuring these ornamented disks spanned both China's northern frontiers and the western course of the Yellow River.

Joining the *danglu* and the decorated mirror from M2 is another category of bronze disk, whose function was left unspecified in the excavation report.⁹⁰ Convex in form, with surface imagery cast on the obverse of the knobbed face, this object suggests itself to be a variety of ornamental fitting. Of particular significance to the present study is its pyramidal surface motif, which occurs around the outer edge and is repeated in two concentric registers at the center. This configuration suggests the appearance of a star-shaped pattern and recalls the use of this imagery on the earlier Qijia mirror from Qinghai. The perpetuation of this imagery on the object from Nidingcun provides further evidence that the decorated, knobbed disk may have existed along the northern frontiers for over a millennium before production commenced in foundries to the south.

While the style of ornament differs between the mirrors associated with the Ordos and those recovered in the Liao valley, the extant archaeological record would suggest that these objects were accorded similar positions as burial furnishings. One can no longer identify the role they may have played in the world of the living; at best, it is only possible to speculate that their uses may have combined the functional — perhaps as creators of fire — with the apotropaic. Beyond the specifics of the mirror's role in daily life, it is apparent that the power invested in these disks by their creators was thought to be perpetual. The act of consigning an object of reflection to the realm of endless darkness bespeaks the mysterious attributes that these communities must have invested in such bronzes. The chapters to follow will present stylistic and contextual evidence that suggests the indebtedness of China's earliest mirrors to these northern traditions. This influence cannot be exclusively reconstructed through the use of empirical data, however; for it was the perception of the mirror as an object of empowerment — an association that continued throughout China's dynastic history — that may ultimately be seen as its greatest northern legacy.

88. Zhao Congcang and Cao Mingtan, "Jiyong cheng chutu de yizu Chunqiu Qin Guo tongpao," *KGYWW* 1989 (1):23–25.

89. Fan Wenlan, *Zhongguo tongshi jianbian* (Shanghai: Xinhua shudian, 1950), p. 65; Chen Pan, "Chunqiu Yi, Di, Beirong, Quanrong biejie," *Kong Meng xuebao* 10 (1965): p. 151.

90. "Ningxia Zhongning," p. 775, Fig. 4:2.

Chapter Three

The Beginnings of a Native Tradition

In the middle decades of the seventh century B.C. — the period that witnessed their successful invasion of Guo — the State of Jin initiated a series of attacks in their southern Shanxi homeland against a group referred to as the Gaoluo.¹ Identified in historical commentaries with the northern Di, the Gaoluo may have entered the region from the upper portion of the province, in the area along the border of the Ordos steppes. Their holdings in Zhou China appear to have been localized centers with limited military power; the lands they controlled in southeastern Shanxi were securely under Jin rule within several decades of the initial Chinese assault.² In all likelihood, the Gaoluo then became Jin subjects and were eventually assimilated into the local population.

The events summarized above illustrate a phenomenon that was relatively common in the Spring and Autumn period; the rising political ambitions of individual ducal leaders, occurring at a time that coincided with the increased migration of northern groups into the Zhou realm, frequently resulted in warfare over land. In some cases, military alliances and intermarriage were used to control the power of these “barbarian” groups.³ Due to such events, central China witnessed an increasing diversity within its population; the artistic character of the period has become a

1. The *Guoyu* records that Duke Xian of Jin entrusted his son with a campaign against the Gaoluo that began in 661 B.C. (Wu Zengqi and Zhu Yuanshan (eds.), *Guoyu Wei jie buzhen* (Shanghai: Shangwu yinshuguan, n.d.), chap. 7, p. 149). This attack (also noted in the *Zuo Zhuan*, Min year 2) appears to have been part of Xian's broader expansionist policy in the Zhongyuan; in 656 B.C. (the year prior to Xian's invasion of Guo), he led a series of attacks against Di tribes between the Fen and Yellow Rivers (Wu and Zhen, *Guoyu*, chap. 7, pp. 142ff.). It can be assumed that the Gaoluo were regarded by the Jin as part of the Di confederation. This is suggested by an entry in the *Zuo Zhuan* (Wen year 6), which records that a certain town — referred to as Pi — was under Jin control in 621 B.C. This village is situated within territory associated with the Gaoluo; it is also in close proximity to the site of reported clashes between the Jin and Di during the middle decades of the seventh century B.C. (Průšek, *Chinese Statelets*, pp. 140–141).
2. Meng Wentong provides a comprehensive discussion of the geographical and political aspects of the Gaoluo territory (“Chidi Baidi”, pp. 70–72). In all likelihood the Jin attacks, begun in 661–660 B.C., were ultimately successful in gaining control of this region; the *Zuo Zhuan* entry cited above (n. 1) indicates that the village of Pi, which lay due north of the area then known as “Gaoluocheng,” was under Jin control by the third decade of the seventh century B.C., if not earlier.
3. Průšek notes that “Xian (Duke of Jin) used marriage to strengthen his position, and three of his five wives were of barbarian stock” (*Chinese Statelets*, p. 140). Xian's marital practices were not uncommon; many Chinese princes, such as the Jin conqueror Zhao Xiangzi, were the sons of northern women. The *Shiji* indicates that Zhao was a Di on his mother's side (Shiji huizhu kaozheng (ed.), *Shiji* (Beijing: Wenxue guji kanxingshe, 1955), ch. 43, p. 22). The Di were also known to have had military alliances with various states during the protracted internecine conflicts of the late Zhou period. In the seventh century B.C., the Di became allies of Qi in order to expedite their invasion of Wei in 639 B.C. (*Zuo Zhuan*, Xi years 20, 21). Four years after this alliance, the Zhou king, Xiang, called upon the Di to serve as an ally in his campaign against the state of Zheng (*Zuo Zhuan*, Xi year 24). This precedent continued into the following centuries; the northern Di group known as the Xianyu were cited as fighting alongside armies from the states of Qi, Lu and Wei in their attacks on Jin in the early fifth century B.C. (*Zuo Zhuan*, Ai year 1).

particularly important exemplar of this process. Eastern Zhou bronze styles featuring northern animal images and new forms of interlace, along with the appearance of techniques such as decorative inlay, can be attributed to the influence of non-indigenous traditions. These developments were also accompanied by the introduction of new objects into the Chinese workshops. The decorated mirror can be counted among these innovations; this chapter will examine the initial stages of the object's reception and transformation in the Zhongyuan.

I. Mirrors at Jin Sites in Shanxi Province

A. Evidence for Production

The earliest information concerning the casting of mirrors in China is provided by ceramic molds and models from the foundry site of Houma in Shanxi.⁴ The vast workshops that yielded these objects were located on the outskirts of the ancient Jin capital of Xintian. The major period of production at Houma dates from the sixth to early fifth centuries B.C., although foundries may have begun to appear here earlier.⁵ While the bronzes found at the Guo cemetery site at Shangcunling continued many of the styles popular in the late Western Zhou period, the material from Houma indicates that significant changes in the Zhou tradition had occurred in the course of the Spring and Autumn period. One of the most important developments involved an increased interest in the depiction of animals. Vessels were ornamented with lively patterns of various intertwined creatures; molds also attest to the creation of small animal figurines. Care was taken to enliven the surfaces of these images with detailed patterns that evoked the presence of fur or feathers.

At present, only a small number of the mirror molds excavated at Houma have been published.⁶ Those reproduced in the archaeological literature suggest that the Jin foundries produced flat bronze disks with small bar handles and concentric rings of surface decoration (Fig. 24). The excavations at Houma also attest to the casting of another type of round disk, which is referred to in the archaeological literature as a *danglu*; its surface features openwork animal decoration encircled by four loops

4. During the excavation of Jin sites within the precincts of their capital at Xintian, which surrounds the modern city of Houma, workshops were unearthed to the south of the ancient center of Niucun. From 1956 to 1961, over 30,000 fragments of ceramic casting molds and models were recovered from the foundries and kilns that were situated in this area. For reports on the discovery of the Houma casting molds and illustrations of selected examples, refer to Zhang Han, "Houma Dong Zhou yizhi zhutong taofan huawen suojian," *WW* 1961 (10):31–32, 25, and "Houma Dong Zhou yizhi chutu taofan," *KG* 1962 (2):55–62. An example of a mirror mold was included with the latter report (pl. 4:9), authored by the Houma City Excavation Team. A general discussion of the production of the Houma molds is included in a study of the casting techniques used at the Xintian foundries (Zhang Wanzhong, "Houma Dong Zhou taofan de zaoxin gongyi," *WW* 1962 (4/5):37–45). For an examination of the art historical issues raised by the discovery of these ceramic fragments, refer to the section entitled "The Bronzes from Liyu and the Houma Foundry" within *The Great Bronze Age of China*, pp. 258–263.

5. While the establishment of the Jin capital at Xintian is dated to 584 B.C., styles associated with the Houma foundries have been identified on objects that may predate this event (*The Great Bronze Age of China*, p. 260).

6. "Houma Dong Zhou," *KG* 1962 (2):58–59, pl. 4:9; two additional circular objects illustrated alongside the mirror mold (pl. 4:3, 5) were the casting molds for lids.

that have been positioned at equidistant points around the outer rim (Fig. 25).⁷ It is unlikely that the simultaneous appearance of bronze mirrors and this style of horse fitting was unrelated. As introduced in the previous chapter, these objects were found together at a burial in Ningxia province; the well-documented interactions between the Jin state and its northern neighbors may have provided the direct impetus for the introduction of both types of disks into the Houma foundries. The most convincing evidence for this possibility comes from a comparison of the mirror from Ningxia and a counterpart from an important Jin cemetery site in Shanxi.

B. The Appearance of Mirrors in Jin Burials

While the Houma foundry provides incontrovertible evidence for the production of mirrors and circular *danglu* at Xintian, the objects themselves have, to date, come from burials to the east of the royal capital. Mirrors have been excavated in Shanxi's southeastern districts of Changzi and Changzhi, where they were recovered from among the rich inventories of Jin burials. It is noteworthy that these districts had been associated with Di groups, particularly the Gaoluo, in the century preceding the establishment of the Houma foundry. The successful pacification campaigns waged by the Jin had strengthened their position in this region. When the Han nobles assumed control of this portion of Jin at the partition of the state in the middle of the fifth century B.C., they also chose a site in this area for their cemeteries. Changzhi and Changzi can, therefore, be securely associated with Zhou elite culture. However, groups such as the Gaoluo may have also introduced certain traditions into the region that became part of its local heritage.

The site of Fenshuiling in the district of Changzhi has yielded a number of important burials; certain inscribed objects have allowed scholars to identify this location as the burial ground of Jin and Han nobles. Initial excavations at Fenshuiling began in 1955, with the first significant finds made between 1959 and 1961, when nineteen Eastern Zhou burials were unearthed here.⁸ M53 was one of the larger tombs excavated among this group and can be dated from the late Spring and Autumn to the early Warring States period. The tomb contained ceramic and bronze vessels that compare with others found at nearby burials; it was distinguished from its neighbors, however, by the inclusion of a decorated bronze mirror (Fig. 26) and a circular disk identified as a *danglu* (Fig. 27).⁹

When excavated, the mirror from M53 was badly broken and required considerable restoration. Fortunately, the majority of the decorated surface was preserved. The ornament is structured within two concentric registers that surround the remains of the original central boss. The outer ring contains the images of five tigers, who encircle an interior band featuring three coiled felines. This mirror displays a striking resemblance to the example introduced in Chapter Two from M2 at Nidingcun. Both possess similar zoomorphic representations, whose formal features closely coincide. All the images are articulated with a distinctive surface granulation – an embellishment that can be identified within the decorative repertory of both the northern frontier and the Zhongyuan in the Spring and Autumn

7. *Ibid.*, pl. 4:1.

8. "Shanxi Changzhi Fenshuiling Zhanguo mu dierci fajue," *KG* 1964 (3):111.

9. *Ibid.*, p. 134, Fig. 27, pl. 5:4.

period. The place of manufacture for the mirror from M53 would, however, appear to be in the Jin workshops rather than sites to the north. A mold for a mirror that is very reminiscent of the Fenshuiling example was recovered at Houma; it displays recumbent felines around its central boss, while the outer concentric band contains images of tigers (Fig. 24).¹⁰

As noted above, historical texts preserve an extensive record of contact — ranging from military to marital — between the Jin and neighboring populations of northern origin; the emergence of an innovative visual vocabulary can be closely associated with these events. Art historical scholarship has bestowed a specific name upon this stylistic phenomenon, which is known as “Liyu.” The term refers to a site in northern Shanxi that has yielded important examples of this ornament. In 1923, at a village of this name in Hunyuan county, a severe mudslide resulted in the discovery of an extensive cache of bronze vessels.¹¹ The objects were distinguished by the intricate patterns on their surfaces, particularly those featuring various forms of animal interlace.¹² The site of Liyu has since become synonymous with this imagery, although examples of comparable interlace have been discovered at many sites in northern and central China. Certain styles found on the molds from Houma, for example, closely resemble the interlace from Liyu. It has been suggested that the Jin foundries were the most important center for the dissemination of this imagery into the Zhongyuan.¹³ Cultural interaction between northern regions and lower Shanxi is strongly suggested by these coeval styles; the appearance of a decorated mirror and *danglu* in a Jin elite burial may be offered as further evidence of this exchange.

The imagery on the mirror from M53 can be more fully contextualized when situated within the stylistic parameters of the “Liyu” tradition. A *hu* from the Shanxi site, for example, contains registers of interlace punctuated by narrow bands filled with miniature images of animals and scenes of combat.¹⁴ Tigers were included among the representations; their lowered heads, heart-shaped ears and granulated surfaces all closely compared to those on the Fenshuiling mirror. The renditions of this beast on the Ningxia example also evoke the Liyu imagery, although they have been additionally endowed with prominently displayed tongues — a feature yet to be found on a Jin mirror. This distinctive inclusion is not, however, unknown; the tigers on the mirror from Shangcunling, as well as those cited on the unprovenanced “Ordos” examples and their Soviet antecedents, all display such oral protuberances. The continuation of this representation on the Nidingcun mirror may suggest that objects such as this one represent a stylistic intermediary between the earlier “Ordos” reflectors and those cast in Zhou China. A considerably expanded archaeological record, however, would certainly be necessary before fully examining this possibility. It is noteworthy that the presence of Siberian-inspired ornament

10. “Houma Dong Zhou,” *KG* 1962 (2), pl. 4:9.

11. Salles, Georges, “Les bronzes de Li-yü,” *Revue des Arts Asiatiques* 8:3 (1934):146–158. An account of the discovery is also included in the introduction to Shang Chengzuo’s monograph entitled *Hunyuan yiqi tu* (Nanjing: Jinling Zhongguo wenhua yanjiusuo, 1936).

12. Art historical examinations of the Liyu style have been presented by Max Loehr (*Ritual Vessels of Bronze Age China* (New York: Asia Society, 1968), no. 64), Jenny So (*The Great Bronze Age of China*, pp. 258–263) and Thomas Lawton (*Chinese Art of the Warring States*, pp. 19–20; nos. 1, 3).

13. *The Great Bronze Age of China*, p. 260–261.

14. Shang Chengzuo, *Hunyuan*, pl. 18; *The Great Bronze Age of China*, p. 267, Fig. 96 (rubbing with details of animal registers).

does not, it appears, extend to the interior register of the Ningxia mirror. Its trio of recumbent felines – whose depictions have yet to be found on Ordos-style mirrors – seem best situated within the Liyu repertory. They share with their counterparts on the mirror from M53 a close affinity to imagery such as that preserved on a fragmentary *pan* vessel now housed in Paris at the Musée Cernuschi.¹⁵ This object was among a group of bronzes that were dispersed into various collections in the years after their 1923 discovery.

While the above evidence would argue that the mirrors from Shanxi and Ningxia convincingly compare stylistically, the *danglu* found at the two sites are less compatible in terms of both imagery and typology. The examples cited above from Nidingcun were described as bronze plaques whose ornamentation was placed on the obverse of the looped surface. The example found at M53 at Fenshuiling represents an alternative bridle configuration; this frontlet was fashioned in the form of an openwork disk, with its loops attached along the outer edge.¹⁶ The *danglu* from the Shanxi burial displays four creatures who attack their ring-shaped enclosure at equidistant points, which correspond to the placement of the outer loops. It is noteworthy that the animal tracery is depicted as if viewed from above. The *hu* vessel noted above, for example, also contains serpentine imagery whose pose and form relate closely to those on the fitting from Fenshuiling. It was previously noted that pairs of confronting birds – rather than sinuous interlace – characterized the zoomorphs found on the Ningxia frontlets; while differing from the M53 ornament, all of these creatures nevertheless can be associated with a common tradition. In their surface granulation and elongated features, the birds on the Nidingcun fittings compare to examples associated with the Liyu style¹⁷ rather than those, such as the bird on the Shangcunling mirror, whose origins may reside in earlier northern representations.

The Chinese preference for a style of circular *danglu* with openwork imagery is evidenced by its reoccurrence at a number of Zhou sites; these objects will be discussed in subsequent portions of this chapter. While molds reveal that *danglu* of this type were cast at Houma,¹⁸ the inspiration for this version of the bridle frontlet can, however, be situated within the northern bronze tradition. Openwork horse fittings have been reported from a number of sites in North China; an important corpus was collected by the Swedish archaeologist, T. J. Arne, in the area of the Great Wall in northern Hebei and Inner Mongolia.¹⁹ Many of Arne's fittings, now in the collection of the Museum of Far Eastern Antiquities in Stockholm, reportedly came from Xuanhua, a district to the northwest of Beijing; this region – associated in early sources with a population known as the Dai²⁰ – is not far from the adjoining Shanxi border and the region of Hunyuan county and Liyu.

15. Charles D. Weber, *Chinese Pictorial Bronze Vessels of the Late Chou Period* (Ascona: Artibus Asiae, 1968), Fig. 13:a.

16. "Shanxi Changzhi Fenshuiling," pl. 5:7.

17. For examples, refer to Weber, Figs. 10:a, 14:e.

18. "Houma Dong Zhou," pl. 4:1.

19. T. J. Arne, "Die Funde von Luan P'ing und Hsuan Hua," *BMFEA* 5 (1933), pp. 163–166; pls. 5:9, 14:5–8.

20. The *Shiji* records that the Dai territory lay due north of the Hengshan range (Huizhu kaozheng ed., chap. 43, p. 22). Průšek noted that this area includes the modern districts of Wei, Datong and Dai. He also adds that "we should not forget that Hsuan-hua, where the collection of Ordos bronzes acquired by T. J. Arne came from, lies like Wei-hsien and Ta-t'ung in the region of the Heng-shan range. We can therefore assume that the Hsuan-hua finds represent the culture of the Dai." (*Chinese Statelets*, p. 191.)

It would therefore appear that the aesthetic embodied in the so-called "Liyu" style was notable for its regional pervasiveness: identifiable at sites such as Nidingcun in Ningxia, this tradition extended both along the Great Wall and into the ducal territories of Zhou China. The geographical reach of this phenomenon must also be extended to the south of the Yellow River; the most notable example for the present study involves the recent discovery of a mirror in Sichuan province that closely resembles the examples from Nidingcun and Fenshuiling.²¹ Excavated in Chengdu, this mirror displays surface imagery that is virtually identical to that of the example from the Jin burial. The authors of the archaeological report, citing this resemblance, suggest that the Sichuan mirror was in all likelihood the product of Shanxi province.²² This attribution suggests that the Houma foundries may have been involved in the early dissemination of the bronze mirror southward. Further evidence for this possibility will be detailed in the fifth chapter of this study.

The information currently available on M53 at Fenshuiling does not discuss the location of the mirror or *danglu* in the tomb at the time of their excavation. The close formal relationship that can be identified between these circular disks in the Jin tradition would suggest, however, that a functional or iconographic compatibility also existed. The creation of funereal bronze assemblages has already been detailed within this study; the selective burial of these two forms of disk may have been a particular Zhou adaptation of this practice. It is possible that the interment of the mirror and *danglu* served both to evoke suprahuman powers and to signify the owner's social and economic status. The fusion of these two objects to create the double tier style—the subject of the chapter to follow—would also suggest that these disks enjoyed a particular kinship in this period. More evidence for the relationship between these objects in the Jin tradition was supplied by material from another important Spring and Autumn site in Shanxi; this burial was discovered among the tombs unearthed in a district to the west of Changzhi.

In 1977, a large burial (M7) was discovered at the site of Niujiapo in Changzhi xian.²³ A number of tombs, dating from the Spring and Autumn to the Warring States period, have been excavated in this area; M7, however, is the largest to date. Containing over 500 objects and three sacrificial victims, it is likely that the main occupant of this burial was a person of considerable rank. Bronze vessels, horse fittings and rare wooden effigies were placed around the burial chamber. The coffin itself contained a variety of small bronze and jade objects, including a decorated disk identified as a mirror (Fig. 28).²⁴ This object, along with a bronze knife and garment hooks, was recovered beside the skeletal remains. It is possible that this individual wore these articles at the time of burial, although it is difficult to reconstruct this with any precision.

The mirror's origins can be identified with considerable confidence; its form and surface decoration closely resemble the example from M53, as well as those of molds from Houma. Measuring 10.2 cm in diameter, the mirror from M7 possesses a small bar handle at its center, surrounded by three concentric decorative registers. The largest of these encircles the central boss and occupies about one half of the

21. "Chengdu Jingchuan fandian Zhanguo mu," WW 1989 (2): p. 65, Figs. 10, 11.

22. *Ibid.*, p. 66.

23. "Shanxi Changzhi xian Dong Zhou mu," KGXB 1984 (4):503–529.

24. *Ibid.*, p. 512, Fig. 7:6.

mirror surface. The imagery features three sinuous and winged felines, whose bodies are each attacked by a snake. The animals, positioned on a granulated ground, turn their heads and confront the serpentine predators. The remainder of the mirror surface is ornamented with two thin rings. A twisted rope encircles the animal imagery, while the outer portion of the mirror displays a border pattern of cowrie shells.

The imagery on the mirror can be related to another object from this site; an openwork, circular disk, identified as a *danglu*, was found within one of the coffins containing a sacrificial victim (Fig. 29).²⁵ In its form and imagery, the object recalls the bridle frontlet from M53. The disk from Niujiapo also contains a central medallion of intertwined creatures, whose writhing bodies create a sinuous pattern that virtually fills the interior. The winged animals are encircled by an ornamented ring with four loops at equidistant points along its outer edge. The pairing of these disks with members of significantly different classes raises issues concerning the Jin perception of these objects. It may be possible to suggest that the sacrificial victim was a groom, perhaps of northern origin. The practice of covering victims with harness fittings and ornaments in North China has been previously discussed within this study; a burial at Liulihe in Hebei province was cited as including an attendant who was interred with a bridle frontlet at the waist.²⁶ In what could arguably be identified as a related practice, a well-appointed burial at the same site revealed that a disk, closely resembling the later Chinese mirror, had been placed beside (or perhaps on) the occupant.²⁷

Therefore, this evidence would indicate that the Jin adopted a northern tradition that may have revered bronze disks for their inherent powers; the examples found at M7 also suggest that these objects were viewed as symbols of their owner's ability – in perpetuity – to possess and control valued commodities: precious metal, horses and the lives and labor of other human beings. There was therefore a particular ideological function that could be served by the interplay of the mirror and *danglu*. The coincidental appearance of these two objects, as well as their rapid fusion in the Warring States period, would indicate that the Chinese reception of the mirror was closely linked to that of the circular bridle frontlet. Together, these bronzes of northern descent may have been perceived as a dualistic emblem of status. While this observation must at present be confined to the realm of speculation, the archaeological record does provide indisputable evidence that the practice of the coeval burial of these objects flourished in the century that followed the Spring and Autumn period.

As mirror production gained momentum in the early Warring States epoch, its surface imagery underwent a significant stylistic transformation. This development was not shared by the *danglu*; the serpentine imagery that characterized this object was retained even after the frontlet ceased to exist independently and was incorporated into the double plate style. The mirror, however, appeared to be more susceptible to the dynamism that characterized the bronze imagery of this period; this tendency would rapidly distance mirror imagery from its northern antecedents. Such developments are apparent when examining material from another burial in

25. *Ibid.*, p. 504, Fig. 2:87, p. 512, Fig. 7:7.

26. Refer to Chapter Two, n. 14.

27. Refer to Chapter Two, n. 10.

Changzhi xian. In May of 1965, a richly furnished Warring States tomb, designated as M126, was excavated at Fenshuiling.²⁸ The objects recovered from this site reflect styles current in both the late Spring and Autumn and early Warring States periods, suggesting that the Jin foundries were producing a variety of styles in the century after the partition of this ducal territory in 450 B.C. by the states of Zhao, Wei and Han. Two circular frontlets unearthed from M126 closely relate to the earlier Jin examples introduced above.²⁹ Four sinuous serpent-like creatures fill the center of a looped *danglu*; the animals' heads are positioned between the petals of the central floral motif. The surface of the outer ring is decorated with a curl pattern that resembles the design preserved on the casting mold. In all cases, the four loops appear along the rim at points that are coordinated with the serpents' heads. The rope and granulation patterns found on the animals from M126 recall imagery associated with the Liyu styles of the late sixth to early fifth centuries B.C.

An unlabelled reconstructive drawing of the burial chamber at M126 does not yield conclusive information about the original placement of these fittings within the tomb. The excavation report does, however, indicate that a decorated mirror was also recovered among the bronzes within the burial chamber.³⁰ Representing the final known mirror from a Jin site, this object differs considerably from the two previous examples, as well as the counterpart from Nidingcun; this may suggest that a stylistic transition could have occurred quite rapidly (Fig. 30). The object from M126 displays two bands of ornamental imagery, encircled by a narrow border fashioned in the "rope" motif. The mirror's outer concentric register contains an overall pattern of knobby interlace. This decoration differs from the individual representations that distinguished the earlier imagery on Jin mirrors; here the ornamental quality of the design has priority over the specific rendition of an animal form. The looped handle is surrounded by an inner decorative band composed of six petals that issue forth from the center of the mirror. Each petal is filled with a relieved pattern that reflects the style of the outer register. This floral pattern can be related to the quatrefoil image placed in the center of the circular fittings from the site. However, the mirror no longer possesses the explicit zoomorphic character that remains visible on the bridle ornament.

The patterns found on the mirror from M126 compare more closely with the decoration cast on the lids of contemporary *ding* vessels.³¹ The explicit zoomorphic representations that characterized the Liyu style of the Spring and Autumn period began to yield to imagery featuring dense, meander-filled bands terminating in relieved knobs or curls. This latter style is frequently identified in the art historical literature by the designation of "Huai." The term, first applied by Orvar Karlbeck and Bernhard Karlgren, was used to distinguish bronze objects that were ornamented with this tactile field of curls and striations; such imagery, which will be

28. Bian Chengxiu, "Shanxi Changzhi Fenshuiling 126 hao mu fajue jianbao," *WW* 1972 (4):38–46.

29. *Ibid.*, p. 41; Fig. 5.

30. *Ibid.*, p. 43; Fig. 6.

31. An example of a *ding* lid with a quatrefoil design resembling that found on the mirror from M126 and dating to the early Warring States period was excavated from M1 at Shanbiaozhen in Henan Province. It is illustrated in the site report authored by Guo Baojun (*Shanbiaozhen yu Liulige* (Beijing: Kexue chubanshe, 1959), pl. 40:1). For a discussion of the relationship between mirror design and the lids of bronze vessels, refer to Higuchi, *Kokyō*, p. 32.

discussed in detail in Chapter Five, would become the ubiquitous ground and filler pattern for decorated mirrors by the middle Warring States period.³²

II. Mirrors in the State of Zhao: Evidence from Hebei Province

The replacement of zoomorphic motifs with overall curl patterns marked an important transition within native mirror production. The example from M126 has been cited by Li Xueqin for its close relationship to a mirror from the cemetery site at Baijiacun in lower Hebei province (Fig. 31).³³ Baijiacun is located to the northwest of the modern city of Handan, which encloses the old capital of the Zhao state. The mirror from this site was excavated at M3, one of the largest Baijiacun tombs. The main occupant was buried with a mirror and bronze weapons, suggesting comparison with funerary practices that existed in the northeast from the earliest period of Zhou rule. The mirror from M3 measures 10.5 cm in diameter, a size that is nearly identical to the example from M126 at Fenshuiling.³⁴ The surface decoration on the Hebei mirror features an overall pattern of intertwined curls and quills. Although the mirror's surface was cast with two distinct concentric bands around the central loop, the decoration on the disk from M3 fills the entire face with little regard for the restriction of the separate enclosures. In this manner, the pattern from Baijiacun differs from its counterpart at Changzhi, where the structuring of the ornament was clearly prescribed by the use of registers.

Three sacrificial victims were interred with the occupant of M3. In a custom reflecting the practice identified at M7 at Niujiapo, the victims were buried in coffins and accompanied by various funerary goods. Three circular fittings can be identified from this burial; one example was found with a victim while the others were situated among a large group of horse and chariot fittings.³⁵ The examples from M3 adhere to the two styles previously identified from the Jin burials. One object features the intertwined serpents attacking the outer edge of their enclosure (Fig. 32, bottom left); the two others contain four similarly shaped creatures facing inward, surrounding a central quatrefoil (Fig. 32, top). The association between these looped openwork disks and other horse trappings is clearly demonstrated here, as is the appropriation of this object to serve as a burial furnishing for certain sacrificial

32. Bernhard Karlgren, "Huai and Han," *BMFEA* 13 (1941):1-125. In this monograph-length study, Karlgren placed a number of mirrors from the collection of the King of Sweden and the Museum of Far Eastern Antiquities into stylistic and chronological categories. The "Huai" designation was first coined by another Swedish sinologist, Orvar Karlbeck, who identified this geographical designation with a specific type of Eastern Zhou vessel ornament ("Selected Objects from Ancient Shou-chou," *BMFEA* 27 (1934):45-53). Karlbeck's terminology has proven to be a misnomer, although its usage has survived in the art historical literature. As Jenny So notes, "Karlbeck mistakenly interpreted this design of teeming curls in relief as a strictly local development peculiar to Chu bronzes from the Huai River basin in Anhui Province" (*The Great Bronze Age of China*, p. 259).

33. Li, *Eastern Zhou*, p. 308.

34. "Hebei Handan Baijiacun Zhanguo mu," *KG* 1962 (12), p. 615, Fig. 5:21; p. 626, Fig. 20.

35. *Ibid.*, p. 615, Fig. 5: 36, 64, 78; p. 626, Fig. 21:5, 6.

victims. Li has noted that these latter individuals wore well-decorated burial garments;³⁶ perhaps they were northern grooms or warriors who attended the Chinese elite in both life and death.

The practice of burying an attendant with one of the distinctive harness fittings is also documented from another large burial at Baijiacun.³⁷ The main occupant of M57 was interred with three victims, who were placed flanking the noble's coffin. The individual buried to the left was found with several small bronze articles, including a circular disk (Fig. 32, bottom right).³⁸ The form of this example differs somewhat from the two previous styles identified from M3. While the fitting recovered from M57 displays the familiar quartet of coiled serpentine creatures, these animals are depicted encircling a wide opening in the center of the medallion. The serpents turn and bite their own undulating forms as their curled upper bodies echo the loops that are cast off the outer edge of the decorated ring.

The Zhao state had significant contact with northern regions in both Hebei and Shanxi provinces. Bitter warfare in the fifth century B.C. resulted in the Zhao annexation of territory that included the Dai state and regions near the Yan border.³⁹ With the advent of the "San Jin" era, Zhao influence, as well as that emanating from lower Shanxi, would be responsible for the appearance of circular fittings and mirrors in the Zhou heartland; the archaeological evidence for this development will be the subject of the following section of this chapter.

III. Early Mirrors and Related Objects from Henan Province

A. Objects from the Zhou Capital

The Zhou capital at Luoyang has been the site of numerous excavations, although the most comprehensive investigations have taken place along the Zhongzhou Road. The periodization of the Zhongzhou sites has provided an important chronological record that spans from the middle of the Spring and Autumn period to the late Warring States epoch. One mirror and two circular fittings have been recovered from among these burials.⁴⁰ These objects were unearthed at M2717, a large tomb dated to the early Warring States period (Period IV). The mirror, whose diameter (10.8 cm) closely compares with the examples from Baijiacun and M126 at Fenshuiling, displays an overall pattern of relieved curls surrounded by a border of cowrie shells (Fig. 33). The Luoyang example does not divide the decorated face

36. Li, p. 74.

37. "Hebei Handan," p. 617.

38. *Ibid.*, p. 616, Fig. 6:17; p. 626, Fig. 21:7.

39. The *Shiji* (Huizhu kaozheng ed., chap. 43) documents Zhao's appropriation of Dai territories. It is noteworthy that Dai horses are here referred to as one of the "three jewels" of the Zhao kingdom (p. 75). This may further support the argument that certain objects and funerary practices relating to horses entered Zhou China through the northern border regions; perhaps the victims buried with the bridle fittings at Baijiacun were Dai grooms.

40. Zhongguo kexueyuan kaogu yanjiusuo (ed.), *Luoyang Zhongzhou* (Beijing: Kexue chubanshe, 1959), p. 91, Fig. 12, pl. 75:16.

into registers; dense ornament fills the entire surface. Two circular fittings were discovered with the mirror at M2717.⁴¹ One example (Fig. 34) resembles the disk from M7 at Niujiapo. A pair of winged felines attack a quarter of serpents, whose heads extend over the edge of the outer rim to secure four small rings within their mouths. The crouching animals, with granulated patterns on their bodies, grip one pair of snakes by the neck, while wrapping their tails around the remaining two creatures. While the Zhongzhou fitting is now quite damaged, its design is preserved on a comparable disk from the Burnet collection (Bradford, U.K.).⁴² The only difference between these fittings occurs at the center; the Luoyang example features enlarged portions of coiled serpents, while the Burnet ornament displays a central medallion of three small snakes, fashioned as recumbent C-curles.

The imagery found on the second fitting from M2717 (Fig. 35) is unprecedented among the harness ornaments previously introduced from Zhou sites.⁴³ The disk itself possesses a familiar typology; four loops were cast off the outer edge and the openwork imagery is enclosed by a ring decorated in the cowrie shell pattern. However, the interior ornament does not feature the standard serpentine tracery. Instead, this object depicts the dominant image of a bird whose outstretched wings encircle two nude female figures. The animal's menacing talons grasp a pair of snakes who crawl underfoot. Birds with extended wings have been previously discussed as a motif on northern mirrors and plaques; the image from M2717 seems particularly close in style to wooden saddle ornaments, in the form of eagles, that have been excavated from a Tagar period site of the sixth century B.C. in the Basadar district of Siberia.⁴⁴ It is also noteworthy that Scythian sources may be responsible for the appearance of imagery featuring nude figures; they often portrayed their goddesses in this manner, suggesting the influence of Hellenistic styles within their art.⁴⁵ The disk from Zhongzhou appears to be a Chinese rendition of a northern object; perhaps its direct inspiration was provided by bronze plaques that could have made their way to the Zhou capital from territories to the north.⁴⁶

B. Early Mirrors in Eastern Henan

1. Shanbiaozhen

The practice of burying mirrors and circular fittings together can also be identified in areas of eastern Henan, where these objects have been recovered at the important cemetery sites of Shanbiaozhen and Liulige. M1 at Shanbiaozhen in Ji xian was

41. *Ibid.*, p. 105, Fig. 73:1, pl. 70:2.

42. H. F. E. Visser, "A Group of Circular Bronze Objects of the Late Chou Period," *AA* 22:1/2 (1959), p. 189, pl. 1:4.

43. *Luoyang Zhongzhou*, p. 105, Fig. 73:2, pl. 70:1.

44. Chlenova, *Proiskhzhdenie*, pl. 30:40; S. I. Rudenko, *Kultura naseleniya*, p. 286, Fig. 145 d.

45. Minns, *Scythians and Greeks*, pp. 373, 377; Figs. 276, 281.

46. A plaque with a small figure, which appears to be that of a nude female, surrounded by a group of animal heads was excavated at an Eastern Zhou site in the Liangcheng district of Inner Mongolia (Tian and Guo, p. 92, Fig. 60:4). As plaques featuring human figures with animals and birds have been recovered at a number of late Zhou sites in the Ordos region, it is likely that the fitting found in Luoyang was fashioned after one of these representations.

excavated in 1935;⁴⁷ it was a large burial surrounded by smaller graves and a horse and chariot pit. Material from M1 favorably compares with objects excavated from M2717 at Zhongzhou, suggesting that the Shanbiaozhen burial can be dated to the early Warring States period. The relationship between these tombs extends to the inclusion of mirrors and circular fittings; these objects were found at M1 in the vicinity of three sacrificial victims and a group of horse trappings.⁴⁸ The decoration found on the looped, openwork disks closely relates to the comparable Zhongzhou examples. One object is ornamented with a pair of felines battling serpents; the other example, which is now badly damaged, appears to depict an eagle-like creature resembling the bird with outstretched wings from M2717. The openwork ornaments were found with an undecorated mirror and several other flat disks; this group of circular objects was recovered alongside garment hooks and clasps, suggesting that they may have been suspended from a belt or an article of clothing.⁴⁹ The presence of flat, undecorated bronzes may be of particular significance here. It is possible that these disks were originally fitted onto the backs of the openwork ornaments. This style is illustrated by an unprovenanced object now in the collection of the Harvard University Museums (Figs. 36 & 37). Recorded in the museum records as “possibly part of a double mirror,” this circular bronze is composed of an openwork fitting, featuring intertwined serpents surrounding a central quatrefoil and an attached, reflective disk. While no archaeological data exists for this object, its origins can be quite securely situated within the Houma tradition. The Harvard “mirror” is nearly identical to the disk from M126 at Fenshuiling; this strongly suggests they were both cast from molds created in the Jin foundries.

The integration of the harness fitting and mirror appears to have been a highly plausible development. As previously discussed, the interplay of these disks may have functioned as an ideological symbol of elite power and control. It would seem probable that by combining these disks, one would be creating an extremely desirable object. As the following chapter will discuss, the “double tier” style would enjoy royal favor, as well as significantly impact mirror production in both central China and in regions to the south.

2. Liulige

The formal transformation of the circular harness fitting into a component of the bronze mirror is suggested by a decorated disk excavated from the Henan site of Liulige, a cemetery complex in Hui xian that has been associated with the Wei state. Tomb No. 1 has been dated to the early Warring States period and contains objects whose typology and ornament relate to the Henan burials introduced above. A mirror and fitting – both described only as circular bronze objects – were found at M1 and their styles reflect those discussed from contemporary sites.⁵⁰ The mirror is decorated with small curls that fill the surface and are surrounded by a rope-patterned border (Fig. 38). One significant difference between the example from Liulige and its counterparts involves the handle; the mirror from this site features an

47. Guo, *Shanbiaozhen*, pp. 2–3.

48. *Ibid.*, pls. 30:3, 4, 31:1.

49. *Ibid.*, pl. 30:3–17.

50. *Ibid.*, pl. 89:4, 5.

animal figure at its center. This creature replaces the small knob or bar that is commonly found on mirrors of this period and hints at the influence of the zoomorphic relief found on its companion disk.

The openwork fitting found with the mirror also displays a rope-shaped outer ring which here encircles four intertwined creatures (Fig. 39). In this example, the serpentine animals face outward and bite the rim at the location of the looped handles. While relating in its general style to examples previously introduced, the Liulige object also has a nearly identical counterpart in the collection of the Musée Guimet in Paris (Fig. 40).⁵¹ The only difference between the two examples is the lack of loops on the Paris disk. Ruptures along the outer edge indicate that small handles had originally been cast onto its outer ring and later removed. Museum archives note that the loops were missing when it was “found” among the plundered Zhou burials at the Luoyang site of Jincun. The records neither suggest a function for this object nor offer any explanation for the removal of the handles. An example from the van Heeckeren collection in Amsterdam, which retains its loops and is identical to the Liulige fitting, was cited in the Museum files as a comparative object.⁵²

An explanation for the removal of the rings may be offered by a third decorated disk from M1. Also described only as a circular bronze object, this example is not documented within the excavation report, although it was illustrated with a belt clasp and other button-shaped objects.⁵³ Its relief ornament displays a quartet of felines who appear positioned around the center of the disk. Their granulated bodies and clawed feet relate to the animals on the openwork disks from Shanbiaozhen and Zhongzhoulu. Serpents also appear to be present here, although the rubbing that illustrates the object’s surface is difficult to read with any precision. It may be suggested that this bronze resembles the disk from the Harvard collections; perhaps it was created by the merging of an openwork plaque—here with its loops removed—and a bronze disk.

This “hybrid” object from Liulige can be further compared with two other related bronze disks. The first is an openwork fitting from the Kurokawa collection in Tokyo, which displays four clawed quadrupeds encircling a central opening (Fig. 41).⁵⁴ The animals bite the inner ring in a manner reflecting the position of the creatures found on the looped fittings. The second comparative object is a “double tier” mirror in the collection of the Shanghai Museum (Fig. 42).⁵⁵ Reported to have been recovered at Jincun in 1948,⁵⁶ this mirror contains a circular ornamental field that parallels the openwork disk from the Japanese collection. The form of the mirror also resembles the example from Liulige, with its animal imagery in relief around a flat outer ring. The Shanghai mirror has been dated to the early Warring States period; it is reasonable to suggest that the Kurokawa disk was of contemporary manufacture.

51. Visser, “Circular Bronze Objects,” p. 189, pl. 1:6.

52. The object from the van Heeckeren collection was published by Visser, p. 189, pl. 1:1.

53. Guo, pl. 108:10.

54. Umehara, *Kanizen*, pl. 33:5.

55. *Shanghai bowuguan cang qingtongqi* (Shanghai: Shanghai bowuguan, 1964), no. 93.

56. René-Yvon Lefebvre d’Argencé (ed.), *Treasures from the Shanghai Museum: 6,000 Years of Chinese Art* (San Francisco: Asian Art Museum of San Francisco, 1983), p. 155.

The appearance of composite mirrors, such as the example from the Shanghai Museum, was to stimulate a series of structural and stylistic developments in the course of the Warring States period. The overall curl-patterned surfaces became enlivened with new departures in representational and geometric imagery. Some of the most lavishly decorated of the Warring States inlaid mirrors are of the "double tier" construction. In addition, the serpentine imagery associated with openwork fittings would inspire forms of interlace that became synonymous with decorated mirror tradition in the state of Chu. In order to fully examine these subsequent styles, it has been necessary to trace the origins of the felines, serpents and ground patterns that contribute to their distinctive appearance. The reception of the mirror into the Chinese tradition required its transformation from a northern import into an indigenous object. The material introduced within this chapter would indicate that the initial steps in this process began with the production of mirrors at the Houma foundry in the late Spring and Autumn period. The appearance of a unique native creation, in the form of the double tier mirrors of the fifth century B.C., marks the next significant development in the early history of the Chinese mirror.

Chapter Four

The Development of “Double Tier” Mirrors

The preceding chapter introduced the two constituents of the object commonly known in the West as the “double tier” or “double plate” mirror. Composed of a reflective disk and an ornamental grille, this mirror resulted from the integration of two objects that had frequently appeared together in burials dating from the sixth to fifth centuries B.C. In the earliest period of mirror production in China, a close relationship existed between the reflector and a circular style of bridle frontlet. It has been posited that these objects were interred in tombs as emblems of class status. Their association would appear confirmed by their ultimate fusion; the result of this union was an object of formal complexity, whose associations with elite culture may have served to enhance the desirability and production of mirrors among Warring States patrons.

While a number of examples of this style are extant, nearly all lack a secure provenance; in manner not dissimilar to the “Ordos mirrors,” the majority of known double tier examples were secured by foreign collectors prior to the establishment of the People’s Republic. Therefore, this chapter will necessarily rely heavily on formal and structural analysis. This is not an inappropriate method of investigation for these objects, however, as one of their most significant contributions to the history of the early Chinese mirror was a stylistic one; the ornamental effect created by their layering processes would be frequently recreated on “single tier” reflectors in the Warring States period. In addition to purely formal considerations, however, a degree of cautious speculation about issues of date and regional distribution can be offered by comparing these mirrors to relevant archaeological material.

Two early examples of double tier mirrors were introduced in Chapter Three; they serve to illustrate the basic structural development of these distinctive objects. It can be recalled that the mirror from the Harvard University Museums was created by fitting a reflective plate onto the back of a circular bridle ornament. In all likelihood, this style of mirror represents the earliest attempt to physically fuse these two objects. By placing the openwork decoration of the fitting against the surface of the disk behind it, it was possible to simulate the appearance of decoration cast in relief. This visual effect would be preserved on the examples to follow, although the harness fitting would be re-configured into a circular grille – as in the example from the Kurokawa collection – which was then attached to the surface of an undecorated mirror. The original method used to create the Harvard mirror, however, was perpetuated on a specific type of double tier construction in the Warring States period; the elaborately decorated inlaid mirrors produced at this time favored the use of two circular sections that fitted tightly into one another.

The circular ornament from the Kurokawa collection, noted above, was introduced in the previous chapter in conjunction with the second of the double tier mirrors. This example, now in the collection of the Shanghai Museum, was created by the integration of a grille (strikingly similar to the Kurokawa example) and an undecorated mirror with a central boss. Evidence presented in the last chapter suggests that the source for these ornamental inserts lay in the bridle fittings that often accompanied mirrors in burials of the late Spring and Autumn to early Warring States period; the Harvard mirror attests to the use of this fitting in the initial creation of this innovative style of reflector. In order to examine the phenomenon of double tier construction, it is necessary to consider the transformation of this harness ornament from an independent object to the decorative component of a new form of bronze mirror.

I. The Creation of Mirror Grilles

An insight into the stylistic and functional transition of openwork disks into mirror ornament is offered by bronze objects excavated from burials at Guweicun in Hui xian, Henan Province.¹ This site, associated with the state of Wei, may be somewhat later in date than the cemeteries at Shanbiaozhen and Liulige; Li Xueqin suggests that the Guweicun site could date to the late fourth century B.C.² Art historians, however, have considered material from these graves to be earlier, arguing that certain bronzes and jades unearthed here closely relate in style to objects dating to the late Spring and Autumn period.³ As the periodization of these Eastern Zhou burials remains in dispute, the present study will assign them a general date of the fifth to fourth centuries B.C.

M1, one of three large burials at Guweicun, contained two openwork disks and the fragmentary remains of an undecorated mirror.⁴ The objects' precise find locations were not detailed; however, these three bronze disks were published alongside garment hooks and clasps, suggesting that they may have been suspended from a belt or girdle worn by the deceased.⁵ A similar group of objects was previously cited from the Henan site of Shanbiaozhen.⁶ One of the openwork objects from M1 at Guweicun, identified in the excavation report as a bridle fitting, closely resembles material introduced in Chapter Three; this looped, circular bronze, with a decorative medallion executed in openwork, can be related to examples excavated from M126 at Fenshuiling and M3 at Baijiacun. All of these objects feature four sinuous, snake-like creatures that are positioned around a central quatrefoil.

1. Zhongguo kexueyuan kaogu yanjiusuo (ed.), *Hui xian fajue baogao* (Beijing: Kexue chubanshe, 1956).

2. Li, *Eastern Zhou*, p. 72.

3. *Great Bronze Age of China*, pp. 263, 269. A jade pendant (*huang*), excavated from M1 at Guweicun in 1950, has been characterized within this catalogue as "particularly interesting as evidence of unusually active exchange between the different art forms during the Spring and Autumn period" (p. 263). Because of its formal relationship with other objects of this epoch, the *huang* was assigned a date of the late sixth to fifth centuries B.C. (p. 269).

4. *Hui xian*, pl. 87:1,2; pl. 88:7.

5. *Ibid.*, pl. 88:1-6.

6. Refer to Chapter Three of the present study, n. 51.

The art historical assertion that Guweicun yielded objects datable to the fifth century B.C. may be supported by the appearance of this fitting, as it is nearly identical to the only published example of a casting mold for this object from Houma.⁷ Therefore, regardless of the actual date of the tomb's construction, it is apparent that certain objects interred here were strongly influenced by the artistic traditions of the late sixth and fifth century B.C. workshops at Xintian. The second circular object excavated at M1 was also designated as a horse fitting (Fig. 43). Certain features do suggest comparison with its companion piece, as they both possess an openwork grille filled with undulating, serpentine forms. While the animals on the fitting described above face inward and surround a central floral motif, the second example displays its serpents in the act of attacking the outer rim. Both of these arrangements find precedent among the bridle ornaments introduced in the previous chapter. This second example from Guweicun is distinguished by its typology rather than its decorative imagery. The familiar quartet of loops has been replaced here by four small apertures cast at equidistant points along the outer rim; in addition, the central quatrefoil motif has been eliminated and a circular opening dominates the middle of the object.

This grille recalls the openwork disk from the Kurokawa collection, although the latter does not possess the openings along the outer edge. It has been argued that the formal relationship between the Kurokawa fitting and the decorative component of the double tier mirror from the Shanghai Museum collection is an extremely close one. On the basis of this evidence, it is possible to conjecture that the undecorated bronze mirror, found with the fitting at Guweicun, may have originally been attached to it. The reflective disk was obviously broken at some point, as only a single fragment appears to have survived. Perhaps the openings along the outer rim had been used to secure the two portions of the mirror. The Kurokawa example may represent a slightly later development in this process; its counterpart on the Shanghai mirror appears to be more securely integrated onto the face of the reflective plate.

Three unprovenanced objects, which relate in style to the excavated examples introduced above, serve to further illustrate the formal relationship between the ornamental horse fitting and the evolving mirror grille. A circular fitting, now in the collection of the British Museum, is an elaborately decorated object featuring a quartet of serpents whose heads extend over the outer rim.⁸ It can be argued that these beasts originally clasped rings in their mouths, in a manner paralleling the comparable fitting excavated from M2717 at Zhongzhou in Luoyang. The British Museum example positions its animal forms surrounding an ornate center, which contains a quatrefoil encircled by rope-patterned borders. Cabochons, some still retaining their turquoise inlay, appear both on the bodies of the animals and along the ornamental interior border. The interest in inlaid decoration, featuring both semi-precious stones and metals, gained popularity in the early Warring States period; this technique would be in evidence on double tier mirrors by the fifth to early fourth centuries B.C.

A second openwork disk, formerly in the collection of C.T. Loo, is nearly

7. *Ibid.*, n. 9.

8. Visser, "Circular Bronze Objects," p. 190, fig. 2:1.

identical to the object excavated from M1 at Guweicun.⁹ Four serpents attack the outer rim of the grille, which displays an opening at its center and four apertures along the outer rim. The function of this object would appear to differ significantly from that of the British Museum example, although their serpentine surface imagery can be closely compared. The latter disk would require ringed handles to provide a means for suspension, while the Loo bronze appears to have been created to attach onto another object. The final example in this comparison is a fitting now in the McElney collection in Hong Kong;¹⁰ here, the familiar quartet of serpents is enclosed by a rope-patterned border. However, the central opening has been enlarged and there are no apertures present along the outer circumference. The typology of the McElney example closely compares with that of the Kurokawa grille; it can therefore be suggested that this former object was intended to serve as the decorative component of a double tier mirror.

These three objects, along with the pair of openwork disks from Guweicun, all suggest that looped bridle fittings found in the late sixth to fifth centuries B.C. provided the formal precedent for the succeeding mirror grilles. Doris Dohrenwend, in her important study of double tier mirrors, has characterized these latter objects as bearing the "Houma stamp."¹¹ From the material introduced above, it is apparent that the mirrors and fittings created at this foundry site exerted an important influence upon the double tier typology. However, in the course of the Warring States period, the so-called "Liyu" style underwent significant changes; the decorative surfaces of mirrors from this period document the innovative imagery and techniques that appeared during the final centuries of the Zhou era.

II. Double Tier Mirrors of the Jincun Style

Archaeological evidence suggests that the incidence of looped bridle fittings in burials was in decline by the middle of the Warring States era; their viability as independent objects appeared to wane as they were replaced by ornamental grilles, whose presence may have served a very similar symbolic function. The early openwork grilles – such as the examples from Guweicun or the Kurokawa and McElney collections – possessed imagery that closely related to the animal forms found on the circular *danglu*. Double plate reflectors that survive intact from that period, such as the Shanghai Museum example, also attest to the importance of these ornamental medallions; the influence of the latter bronzes can be associated with both compositional and decorative features. As the Houma tradition ceded to new aesthetic preferences, mirror ornament would, as noted in Chapter Three, reflect these developments. However, while the imagery created for double tier mirrors would evolve stylistically, their original structuring principle – the fusion of an openwork grille and reflective plate – would continue to inform the production of the majority of examples.

9. *Ibid.*, fig. 2:2; Alfred Salmony, *Sino-Siberian Art in the Collection of C.T. Loo* (Paris: C.T. Loo, 1933), pl. 43:1.

10. The information on this circular fitting was provided by Mr. Brian McElney, who purchased the object from a London dealer in January, 1975.

11. Doris Dohrenwend, "The Early Chinese Mirror," *AA* 27:1/2 (1964), p. 96.

The evolution of the double tier mirror in the early and middle Warring States period can be traced by examining a series of examples that document the appearance of new forms of surface decoration. A number of these objects have been associated with the Zhou imperial cemetery complex at Jincun. Located to the north of Luoyang, these burials first came to light in 1928; their rich furnishings were quickly appropriated by collectors and museums throughout the world.¹² This mortuary site may have been in use for a considerable period of the Warring States era; inscribed material recovered from tombs here cite dates that span from the late fifth to middle third centuries B.C.¹³ The objects reportedly found at Jincun represent some of the most opulent examples of Eastern Zhou art, including bronze objects inlaid with decoration in gold, silver or glass, along with elaborately carved lacquerware and jades. The appearance of double tier mirrors among the Jincun material would suggest that this object was assimilated quite rapidly into the royal treasuries; both ideological associations and a potential for sumptuous ornament may have contributed to its ready acceptance. It is, however, important to note that dealers and collectors were known to fabricate a "reported" Jincun provenance in order to enhance the desirability of an Eastern Zhou object; therefore, this attribution must be used with extreme caution. For this reason, the relationship between the double tier mirrors associated with this site will be argued primarily on the basis of stylistic comparison and not the presumption of a common archaeological context.

The earliest style of double tier mirror reported from the Jincun burials can be closely associated with Dohrenwend's "Houma stamp," as its imagery is clearly indebted to the Jin tradition. Examples include a mirror from an unidentified collection, published by R.W. Swallow in 1937 (Fig. 44), and a stylistic counterpart that formerly belonged to the Stoclet collection in Brussels (Fig. 45).¹⁴ Both objects are composed of ornamental grilles and feature a quartet of felines, who have been superimposed onto a knobbed, reflective plate. The Stoclet mirror also displays a small quatrefoil surrounding the central boss. The four-part arrangement of ornament on both examples reflects the influences discussed above. The animals have elaborately decorated surfaces, which are punctuated with circular cabochons. The placement of additional bezels along the outer edge recalls the apertures cast on the disks introduced above. Traces of inlaid decoration are reportedly still evident on these mirrors; it is noteworthy that the presence of this embellishment sets them apart from the related Houma material. As inlaid ornamentation was a significant component of the "Jincun style," the makers of these mirrors may have appropriated the use of this technique from contemporary objects, such as vessels, garment hooks and weapons.

While it is arguable that the two double tier reflectors introduced above can be associated with the lineage of Eastern Zhou mirrors and openwork fittings that have been introduced in the course of this study, it is also necessary to consider them in relation to other mirrors with this type – also reported to be from Jincun – that

12. Li Xueqin summarizes the historical and archaeological issues associated with Jincun in *Eastern Zhou*, pp. 29–36.

13. *Ibid.*, pp. 34–36.

14. One example, now in a private British collection, was illustrated by R.W. Swallow in *Ancient Chinese Bronze Mirrors* (Peking: H. Vetch, 1937), pl. 3. The second mirror, formerly in the Stoclet collection, was published in Umehara Sueji's previously cited monograph, *Kanizen no kokyō no kenkyū*, pl. 38:1.

appear to be somewhat later in date. Two examples, one reportedly from Jincun whose present location is unknown¹⁵ and the other in the collection of the Harvard University Museums (Fig. 46),¹⁶ suggest innovations in both ornamental imagery and structure. This second pair of "Jincun" double tier mirrors was created by fitting the reflective disks into shallow plates, allowing the imagery to be elevated slightly from the surface disk. This configuration enhanced the illusion of both relief and movement.

The latter effect is particularly evident in the treatment of the decorative imagery; in contrast to the symmetrical quadrants of ornament found on the previous examples, these mirrors possess less easily readable surfaces of lively, intertwined dragon-like forms. Zoomorphic interlace styles flourished in regions associated with the southern state of Chu in the late Zhou period; originally inspired by the Jin aesthetic, styles developed in these regions that ultimately exerted a significant influence on bronze ornament in the Zhongyuan.¹⁷ The specific relationship between Chu traditions and mirror imagery will be introduced below and subsequently discussed in detail in the final chapter of this study.

The representations on each grille of the above mirrors consist of six quadrupeds with attenuated, serpentine bodies. Three examples are depicted in profile, while the remaining trio are viewed from above. These latter forms face the outer edge of the mirror, in a manner reminiscent of the serpentine quartets on the Houma fittings. Further reference to these openwork disks is manifested by the presence of four circular impressions cast along the outer rim. While serving no actual function, these circlets recall the apertures cast onto the ornamental grilles. However, the four-point arrangement that characterized these objects and the early double tier mirrors is not in evidence on these examples. Instead, animals here overlap each other in an almost indecipherable fashion; clarity of individual parts is subsumed by an interest in overall interlace patterning. The undulating forms of the serpentine bodies are emphasized by the presence of curling appendages that appear to issue forth from the animals' torsos. In contrast to the more static quality of the pair of mirrors with feline quartets, these examples pulsate with activity and movement.

The animal interlace pattern found on these mirrors can be identified with other objects traditionally associated with the royal burials at Jincun. For example, three pairs of comparable dragon-like creatures ornament the lid of a *ding* vessel said to have been unearthed here. This object, now in the Pillsbury Collection at the Minneapolis Museum of Art,¹⁸ suggests that a relationship between lid and mirror ornament, previously noted on examples associated with the Houma tradition, also occurred among the so-called "Jincun" bronzes. Similar renditions of paired serpents can be found on excavated material, as well; the lid of a *ding* vessel from a

15. Higuchi, *Kokyō*, p. 39, Fig. 15 (right).

16. Umehara, *Kanizen*, pl. 34:2.

17. For a discussion of the formal character of Chu bronze ornament, refer to a paper by Jenny F. So entitled "Hu Vessels from Xinzheng: Towards a Definition of Chu Style" in *The Great Bronze Age of China: A Symposium* (Los Angeles: Los Angeles County Museum of Art, 1983): 64–69. A comprehensive discussion of the stylistic character of Eastern Zhou bronze traditions is presented in So's unpublished dissertation, *Bronze Styles of the Eastern Zhou Period* (Harvard University, 1982).

18. Bernhard Karlgren, *A Catalogue of the Chinese Bronzes in the Alfred F. Pillsbury Collection* (Minneapolis: Minneapolis Museum of Art, 1952), p. 129; pls. 66–67.

Western Han site in Jiangsu Province, for example, closely relates to the Pillsbury example.¹⁹ While this burial dates to the post-Zhou era, bronze objects recovered here may have been manufactured in the Warring States period.²⁰ The discovery of this vessel at a site in the southeast hints at the possibility of interaction between these regions; this issue will be discussed in detail in the chapter to follow.

The lack of archaeological evidence makes it extremely difficult to date the pair of mirrors with dragon interlace; it may be possible, however, to correlate them to an important double tier example that has been the subject of examination by Thomas Lawton. In his catalogue on the art of the Warring States period, Lawton situated the production of an inlaid mirror, presently in the collection of the Freer Gallery of Art, in the period from the fifth to early fourth centuries B.C. (Fig. 47).²¹ This object, reportedly also from Jincun, is constructed of two circular disks that fit into one another.²² In contrast to the other double tier examples introduced above, the decorative surface of this object is not executed as an openwork grille; rather, the ornament is inlaid in silver and gold on a solid bronze plate. The reverse side displays a reflective disk, which has been inserted into the decorated section in a manner reminiscent of the Harvard "mirror fitting." The surface of the inlaid example, however, closely relates to the previously discussed Jincun mirrors. It possesses three comparable pairs of intertwined dragons. The quadrupeds in profile are distinguished by their silver inlaid surfaces, while the animals seen from above, facing the outer edge, are fashioned in a scale motif of gold. Mock cabochons of gold and silver are found among the animal forms and along the decorated rim.

Lawton notes that "small mineralized fragments of the silk in which the mirror was wrapped when buried still adhere to the surface."²³ This suggests that the inlaid object was not meant to be worn at the time of burial; such a luxuriously ornamented mirror may not have served an active apotropaic function, but was interred with a member of the Zhou royal family as a prized possession. It would appear that the more common double tier styles, featuring the openwork grille, had inspired such a lavish creation. The superb quality of this object and its use of precious metals would not make imperial manufacture—or a Jincun provenance—improbable; if this were the case, such an object would indicate that mirrors were being produced as royal luxury goods by the first century of the Warring States epoch.

The inlaid, double plate mirror from the Freer can be compared with a second example of similar construction, also reportedly found at Jincun (Figs 48 & 49).²⁴

19. "Jiangsu Lianshui Sanlitun Xi Han mu," *KG* 1973 (2), p. 82, fig. 3:1.

20. Lawton, *Warring States*, p. 79. The dating of the contents of the Western Han burial at Lianshui, Jiangsu province, is considered here in light of a bronze quadruped in the Freer Gallery of Art that closely resembles an example unearthed at the site. Lawton notes that "the elaborate gold and silver designs ornamenting the surface of the Lien-shui quadruped are akin to those associated with objects said to have come from the late Eastern Chou tombs at Chin-ts'un, Honan Province." His discussion concludes with the observation that the contents of this Jiangsu burial may include objects that were "preserved for some time as heirlooms" before being buried. This would account for the close formal relationship between the *ding* vessel from this site and the Warring States mirror and *ding* reportedly unearthed at Jincun.

21. Lawton, *Warring States*, p. 83.

22. *Ibid.*, p. 84. The Jincun provenance for the Freer inlaid mirror was "inferred" by Umehara Sueji in *Rakuyō Kinson kobō shūei* (Kyoto: Tōhōbunka gakuin, 1937): 33–34; Lawton regards this attribution with justifiable caution.

23. Lawton, p. 83.

24. Higuchi, *Kokyō*, p. 40, fig. 16.

Inlaid in silver and gold, this example features three bear-like creatures positioned between panels of decorative arabesque. One segment of the ornamental surface also depicts the image of a man on horseback, shown in the process of attacking a tiger. This male figure, identified as a hunter, extends his sword in the direction of the menacing beast. The individual is attired in a tunic-like coat and high boots; he squats on the saddle as he lunges at the tiger. His appearance and posture recall textual accounts of northern warriors,²⁵ this image may suggest that the Chinese acknowledged an association between the mirror and these individuals in the late Bronze Age.

The group of objects introduced above, all traditionally associated with the Zhou royal burials at Jincun, suggests that the reception of the mirror into Zhou elite culture was significantly involved with the development of this elaborated style. This corpus also reveals the diversity found within the ornament and construction of these mirrors. The examples featuring the four beaked felines bespeak the continuity of earlier patterns whose origins can be traced to openwork fittings and decorative grilles. The second pair of mirrors, ornamented with a profusion of intertwined animal forms, suggests the appearance of innovative styles of zoomorphic tracery. An interest in interlace is echoed on the Freer inlaid mirror; this object, as well as the inlaid example featuring the northern hunter, also displays the attention to sumptuously decorated surfaces that has become synonymous with the term "Jincun style." These objects represent an important early development in the history of the Chinese mirror. The analysis to follow will introduce two additional types of double tier mirror that suggest the manner in which imagery associated with the Liyu bronze tradition was transformed into new styles of zoomorphic interlace in areas below the Yellow River.

III. Formal Evidence for Regional Transmission

A. The "Coiled Dragon" Style

In 1954, a square, dual plate mirror was excavated from M1 at Fengshushan in Changsha, the southernmost urban center associated with the Chu (Fig. 50).²⁶ Upon initial inspection, this object may appear unrelated to the mirrors discussed above, sharing only the common feature of a two tier construction. Its distinctive shape, as well as a surface ornamented with a profusion of rope-like coils, clearly sets the Chu example apart. The square configuration, however, is not unprecedented, as examples have been associated with sites to the north; T. J. Arne reported several from among the bronzes at Xuanhua²⁷ and a single mirror of this type was reported from a burial at Fenshuiling in Shanxi.²⁸ A double plate mirror with a pair of recumbent

25. For a recent examination of the ethnicity of figural representations recovered from the royal burials at Jincun, consult Sun Ji, "Luoyang Jincun chutu yinzhao yi renxiang zushu kaobian," *KG* 1987 (6):555–561. An illustration of the hunter depicted on the inlaid mirror is found on p. 560, fig. 8.

26. *Hunan chutu tongjing tulu* (Beijing: Wenwu chubanshe, 1960), p. 9; pl. 3.

27. Arne, "Luan P'ing und Hsuan Hua," pl. 15:11, 12.

28. "Shanxi Changzhi Fenshuiling," *KGXB* 1982 (3), p. 134.

felines, excavated at Fuling in Sichuan,²⁹ bespeaks the "Houma stamp" and may represent an import from the Zhongyuan; a mirror from Chengdu was previously cited as belonging, in all probability, to the Jin tradition. In addition, unprovenanced examples of square, double tier mirrors are also known and several examples closely relate to the excavated object from Fengshushan. These comparable mirrors include examples from the Hakutsuru collection in Kobe (Figs 51 & 52)³⁰ and the Harvard University Museums (Figs 53 & 54).³¹ These latter objects provide an invaluable clue to the deciphering of the surface imagery on the Changsha example. Through the use of comparative formal analysis, it is possible to situate the source for the Chu imagery within the mirror traditions introduced above.

The decoration found on the square mirrors from the Harvard and Hakutsuru collections may be categorized as a formal intermediary between the ornamentation on the Jincun mirrors and that found on the surface of the Changsha object. On the mirror from the Harvard Museums, eight intertwined quadrupeds, depicted from above, cover the surface with their coiling bodies. Four of the creatures attack the outer corners of the decorative plate, where they confront an ornamental motif whose form resembles that of a *fleur-de-lis*. The remaining creatures converge on a small ring that surrounds the central boss. The formal arrangement of these serpentine quartets recalls the compositions found on the harness fittings and mirror grilles associated with the Houma foundries. Four circular bezels are placed halfway between the corners and the mirror's center; these rounded forms echo the four rivets at the outer edges which secure the ornamental grille to the reflective plate.

The somewhat perilous balance effected within the composition of the Harvard mirror, with two symmetrical quartets interwoven to form a dense, undulating tracery, is not as successfully maintained on the Hakutsuru example. Here, the animal imagery verges on a type of arabesque, as the zoomorphic forms have become abstracted into a series of rope-like tendrils. Such an effect was achieved by nearly eliminating the legs on the serpentine creatures; this resulted in a series of coiling, plastic bodies that appear as circular patterns surrounding the central boss. The animals still bite the edge of the rim in a manner that recalls the earlier examples; however, the general curvilinear effect created by these intertwined images has now gained primacy over the depiction of organic form. The four sunken bezels, which also evoke the influence of the Jincun style, are nearly lost within this composition.

The Changsha mirror can now be re-introduced into the analysis, as its surface may be interpreted as a further reduction in the organic content of this ornamental style. While little reference to any serpentine precedent is retained on the double tier reflector from Fengshushan, the rope-like interlace can be closely associated with the Hakutsuru mirror. They share a nearly identical treatment of the distinctive S-shaped coils that ornament their surfaces, arguing for a close chronological and geographical relationship between these mirrors. If this is the case, the Changsha mirror can also be situated within a formal lineage shared by the double tier examples introduced in the course of this study.

29. "Sichuan Fuling diqu xiaotian xi Zhanguo tukeng mu qingli jianbao," *WW* 1974 (5), p. 65, Figs. 27, 49.

30. Umehara, *Kanizen*, pl. 35:3.

31. *Ibid.*, p. 35, Fig. 19; pl. 34:1.

In all likelihood, the mirror from Fengshushan dates to the later Warring States period; its imagery closely relates to styles found extensively on single plate examples unearthed in Changsha and its environs. Interlace patterns will be analyzed in detail in the final chapter of this study, where they will be discussed in relationship to other ornamental styles associated with the mirrors of Chu. While the earliest history of the mirror within this cultural sphere still remains obscure, the double tier style offers an important clue to the regional transmission of the bronze reflector. This chapter will conclude with an examination of another series of double plate mirrors, whose formal properties also suggest that the Houma tradition may have been the source for mirror ornament that would ultimately flourish far to the south.

B. The "Teeming Serpent" Style

Within the known corpus of double tier mirrors, there exists a small group of objects whose surface decoration diverges from the more common versions of animal patterns introduced above. This ancillary style is characterized by its overall patterns of densely cast snake-like forms. The teeming serpent style, like its other double tier counterparts, has its origins in the integration of openwork ornaments and undecorated mirrors. The precedent for the distinctive surface patterns that characterize this style can be associated with objects such as a harness fitting from the Visser-Minkenhof collection in Berlin.³² This disk, with four rings affixed to hooks along the outer edge, contains an openwork pattern of felines and serpents. The object can be related to the fitting from the sacrificial coffin at M7 in Niujiapo, Changzi xian (Fig. 29). This burial has been dated to the late Spring and Autumn period, suggesting a possible chronological context for the Berlin example. In addition, the close formal relationship between this fitting and the Niujiapo example would also suggest that the Visser-Minkenhof fitting was created under the influence of the Jin styles associated with Houma.

The serpent and feline pattern may have served as the inspiration for a pair of harness fittings which appear to have been transformed into mirror grilles. One example was documented from among the cache of bronze objects found in 1923 at the Henan village of Xinzheng (Fig. 55).³³ Jenny So has convincingly shown that this corpus of material manifests considerable diversity in its periodization and regional traditions.³⁴ She argues that a number of objects dating from the Spring and Autumn to early Warring States periods were created under the dual influences of the Liyu aesthetic and the styles found in regions under Chu control; while the original looped form and openwork decoration of the Xinzheng disk can be situated within the context of the harness fittings introduced in the previous chapter, other aspects of the work suggest a second source of inspiration. Unlike the openwork ornaments discussed above, the Xinzheng example displays four serpents who face the outer rim between the loops (not at the point of contact between loop and rim) and fill the interior surface with an overall interlace pattern. This arrangement

32. Visser, "Circular Bronze Objects," Fig. 1:5.

33. Sun Haipo, *Xinzheng yiqi* (Beijing: Hunan tongzhiguan, 1937), pl. [18].

34. So, "Hu Vessels from Xinzheng," pp. 64–69.

allows the animals to attain a greater sense of movement and interaction — aesthetic preferences that will become a significant aspect of the late Warring States ornament in the Chu realm.

The Xinzheng example is nearly identical to a fitting in the van Heeckeren collection in Amsterdam.³⁵ The deliberate removal of the outer loops of both of these objects suggests a transformation in use as well as form; this development appears to parallel that previously discussed in relation to the loopless fitting from the Musée Guimet. The role of such altered fittings within the creation of a double tier mirror can be ascertained by comparing these openwork disks with a mirror from the Ōkura collection in Tokyo (Fig. 56).³⁶ The grille of this latter object closely compares with the object from the Visser-Minkenhof collection; the remains of four hooks along the outer circumference suggest that rings were originally suspended from the rim. This outer edge is decorated with a rope-patterned border, evidencing the influence of the Houma decorative repertory. However, in contrast to the clearly delineated quadrants of the openwork fittings associated with the Jin foundries, this object displays a grille that literally teems with small, coiled serpents. In spite of the densely organized ornament, the composition is intelligibly ordered; half of the animals face the outer rim, while the remainder attack the central medallion. This latter area displays the curious image of oversized, intertwined serpents. This configuration becomes more readable when compared to the similarly shaped design on the snake and dragon disk fitting from M2717 at Zhongzhoulu. It is apparent that the grille on the Ōkura mirror was originally executed as a looped fitting and was subsequently transformed into the decorative face of a double plate mirror. This object remains without a central boss; perhaps rope or fabric was threaded through the openings of the ornament to allow the mirror to be suspended or held in the hand.

While the “Houma stamp” may be in evidence on the Ōkura mirror discussed above, the subsequent formal development of this “teeming serpent” style suggests the increasing focus on the ornamental potential of surface interlace. A mirror from the Harvard University Museums can be offered as representative of this phenomenon (Fig. 57).³⁷ The example from the Harvard collections is composed of two plates that are joined by four animal cartouches, the latter serving to secure the bottom disk to the grille. The incised S-pattern along the outer rim is a close variant of the form on the underplate of the Ōkura mirror. The Harvard grille, however, differs from that of the previous example, as it appears to have been created to specifically serve as a mirror component. The presence of a raised knob with circular openings certainly suggests itself to be the central boss. The decorated surface, a dense field of coiling forms, has been well observed by Dohrenwend:

“The grille itself is composed of no less than twenty-eight interwoven serpentine animals. Eight feline heads bite at the rim; eight similar heads can be detected a little further in; four heads, as in mid-field, stretch out their tongues at the rim; and four serpent heads make contact with the center.”³⁸

35. Visser, Fig. 1:1.

36. Umehara, *Kanizen*, pl. 32:2.

37. *Ibid.*, pl. 32:1.

38. Dohrenwend, “Early Chinese Mirror,” p. 95.

Archaeological evidence makes it possible to now consider the "teeming serpent" motif found on mirrors, such as the Harvard example described above, as a manifestation of an ornamental aesthetic that existed in regions to the south of the Yellow River in the Warring States period. Particularly relevant to the present discussion are bronze objects excavated from the early fifth century B.C. burial of Zeng Hou Yi in Sui xian, Hubei Province.³⁹ This richly furnished burial site contained bronzes whose ornament reflected a variety of traditions. Certain vessels attest to the presence of the "Liyu" style, while others suggest an increasing interest in dense, plastic forms and teeming surface relief.⁴⁰ The drum base excavated from this burial, with its surface ornament of "writhing serpentine energy",⁴¹ may be related to the lively serpentine imagery that characterized the zoomorphic grilles of several Jincun examples introduced above. The reduction of these animal images into a dense pattern of small, relieved coils is evident on a number of other objects from the site; the well-known *zun-pan* serves as an excellent example of this decorative phenomenon.⁴² The surface of this composite bronze vessel pulsates with an unsettling sense of movement. Recognizable animal forms rise from a surface that is literally enveloped in tiny, serpentine interlace. Precedent for this style of miniaturized ornament may be situated with the wood-carving traditions of Chu; a lacquered box excavated from Jiangling Yutaishan in Hubei Province suggests this possibility.⁴³ Also dating to the fifth century B.C., this object displays a surface that teems with a network of serpentine imagery that parallels that of the *zun-pan*.

To the objects cited above can also be added a final example of a double tier mirror, also from the Ōkura collection, that displays this distinctive style of surface ornamentation (Fig. 58).⁴⁴ The mirror's grille contains two registers of this imagery, which creates the illusion of both surface movement and relief. This sensation is further heightened by the appearance of the object's central boss, which is rendered as a massive serpentine form that rises out of the melee to form the mirror's handle. The placement of larger animal forms amid the "teeming serpent" tracery is shared by the Ōkura mirror and the Zeng Hou Yi *zun-pan*. Such comparable stylistic choices further indicate that the surface decoration found on these double tier mirrors was inspired by ornamental conventions of the early Warring States period favored in areas below the Zhongyuan.

Both forms of serpentine interlace introduced above suggest that the mirror ornament of central China, deeply indebted to the Houma tradition, came into contact with new sources of inspiration to the south in the fifth to fourth centuries B.C. While mirrors of dual plate construction may not have enjoyed a long period of currency in the late Zhou period, their formal legacy was perpetuated by the Chu

39. *Sui Xian Zeng Hou Yi mu* (Beijing: Wenwu chubanshe, 1980). The initial report of this site appeared as "Hubei Sui Xian Zeng Hou Yi mu fajue jianbao," *WW* 1979 (7): 1-24.

40. The stylistic precedents for the material unearthed at Sui Xian have been examined by Robert L. Thorp in "The Sui Xian Tomb: Re-thinking the Fifth Century," *AA* 43:1/2 (1981-82): 89-91, and by Jenny So in "Hu Vessels from Xinzheng," pp. 67-69.

41. So, "Hu Vessels from Xinzheng," p. 67.

42. *Sui xian*, pl. 55.

43. "Jiangling Yutaishan Chu mu fajue jianbao," *KG* 1980 (5), pl. 4:5. The influence of lacquer styles upon the bronze aesthetic of the late Zhou period is treated in detail within Jenny So's dissertation; refer particularly to the chapter entitled "The Relationship Between Bronze and Lacquer Design."

44. Umehara, *Kanizen*, pl. 32:2.

casters, who adopted the appearance of an openwork grille on their single plate reflectors. This development will be detailed in Chapter Six; as a preface to an analysis of the mirror in the south during the middle and late Warring States period, this study will examine the earliest appearance of this object in the region of the lower Yangzi river. In contrast to the reception of the mirror in the Zhongyuan, where its association with the values of elite culture appeared to foster its acceptance, the early history of reflectors in the south may have been shaped by a differing set of conditions. The chapter to follow will consider the contextual issues that may have contributed to the rise of mirror use in regions below the Yellow River.

Chapter Five

The Emergence of the Mirror in the South: Early Evidence from the Huai River Region

In contrast to the relatively small number of mirrors currently known from sixth and fifth century B.C. sites, the archaeological literature documents the recovery of hundreds of late Warring States mirrors; the majority of these have not been unearthed in the Zhongyuan, but rather in areas below the Yellow River, notably in territories associated with the State of Chu.¹ While this wealth of excavated evidence attests to the importance of early mirrors in these regions, issues relating to the origins of their production and use in southern China have received little scholarly attention. On the Central Plains, the mirror's introduction and early history can be charted as a process of formal and cultural adaptation; to the south, wide distribution and stylistic maturity appear to have occurred more rapidly. Chapter Four of this study has suggested that double tier reflectors, whose origins can be traced to objects of the Spring and Autumn period, may have served as a precedent for certain Warring States mirrors in the south. However, to date only one example of this type has actually been recovered from a Chu site.² The close formal relationship between this sole excavated example and various unprovenanced mirrors, such as those previously introduced from the Hakutsuru and Harvard University collections, would strongly argue for a common southern origin; nevertheless, it must be conceded that the most convincing evidence for the transmission of double tier mirrors to Chu areas remains stylistic rather than archaeological.

At present, there have been no decorated mirrors excavated from sites in Chu territory that have been assigned a date in either the Spring and Autumn or early

1. Since the founding of the People's Republic, there has been extensive archaeological activity in regions associated with the State of Chu and a significant number of excavated sites have yielded late Zhou mirrors. Lei Congyun's detailed survey places the total number at one thousand ("Chu shi jing de leixing yu fenqi," *Jiangnan kaogu* 1982 (2), p. 20). This figure certainly appears to be plausible; there is conclusive documentation that over two hundred and fifty examples were excavated from burials in Changsha alone between 1952 and 1957 ("Changsha Chu mu," *KGXB* 1959 (1), p. 60). A number of these latter finds were illustrated and documented within *Hunan chutu tongjing tulu*. In addition to Lei's study, summaries of archaeological material up to 1977 are supplied by Higuchi, particularly pp. 52–59; more recent discoveries are cited by Gao Zhixi in "Cong Changsha Chu mu kan Chunqiu Zhanguo shiqi dangdi jingji wenhua de fazhan," *Zhongguo kaogu dierci nianhui lunwenji* (Beijing: Wenwu chubanshe, 1982): 59–66. The phenomenon of "Chu mirrors" will be analyzed in detail in the sixth chapter of the present study.

2. *Hunan chutu tongjing*, pl. 3. A detailed discussion of this object is presented in Chapter Four of the present study.

Warring States era. This periodization hints at a possible hiatus in Chinese mirror production between the florescence of the Houma foundries and those associated with Changsha and regions to the south. The so-called “Jincun” tradition may have been a source for the dissemination of mirror styles southward, as indicated by formal developments introduced in the previous chapter. It is important to note, however, that stylistic transmission from the Zhongyuan to the south was not restricted to the major Chu centers in Hunan. As introduced in previous chapters of this study, mirrors have been recovered in Sichuan that suggest themselves to be imports from the foundries to the north. Evidence also indicates that mirror traditions associated with the Central Plains penetrated into areas of the southeast. Objects found in the Huai River valley in modern Anhui and in neighboring Zhejiang and Jiangsu provinces indicate that mirrors were in use there during the Warring States period. In fact, a small group of mirrors from this area may date to the early portion of that era, suggesting themselves as predecessors to those recovered from Chu sites to the south and west. This chapter will introduce the archaeological and formal issues relating to the early appearance of these mirrors in the Huai region.

I. The Identification of a Huai Mirror Tradition

In the introduction to the first volume of Liang Shangchun’s pioneering study, *Yanku cangjing*, mirrors dating to the pre-Han period were discussed in relation to two distinct geographical regions: the royal Zhou cemetery at Jincun in Luoyang and the region of Shou xian in the valley of the Huai river.³ Published in 1940, Liang’s assessment was based on mirrors which had been procured by dealers and collectors in these areas during the preceding decades. Ironically, by the time his study was available, vast numbers of these objects had already been dispersed into museums and private collections in Europe and Japan. The Jincun mirror tradition has been introduced and detailed in Chapter Four; its traditional “southern” counterpart – the objects associated with the Huai river region – provide another important corpus of material whose manufacture may span the entire Warring States period.

The designation of a “Huai style” has already been introduced within this study. It was noted in Chapter Three that the art historical literature commonly uses this term to refer to a ground pattern of relieved curls and striations which appeared widely on mirrors in the epoch of the Warring States. The origins of this terminology can be traced to the writings of the Swedish sinologists Orvar Karlbeck and Bernhard Karlgren; they used the designation to identify the style of surface ornament commonly found on the mirrors that Karlbeck had collected in the Huai river region. Initially, the “Huai” style was contrasted to the zoomorphic and inlaid traditions associated with the “Jincun” mirrors. Archaeological evidence, however, has proven that such regional distinctions are untenable. The so-called “Huai” pattern can now be identified on bronze objects that have been unearthed from late Spring and Autumn and Warring States period sites in various parts of China. In fact, some of the earliest excavated examples of mirrors ornamented with this surface motif have

3. Liang Shangchun, *Yanku cangjing* (Tianjin: n.p., 1940), I, 2a.

been recovered far to the north of the river for which it was named; objects displaying impeccable "Huai" curls and striations have been unearthed from burials cited above at Baijiacun in Hebei province and at the site of Zhongzhou in Luoyang itself.

The archaeological record also indicates that the appearance of the "Huai" pattern extended well to the south of Shou xian. Over thirty years of excavations within the major Chu center at Changsha in Hunan province, for example, have yielded numerous Warring States mirrors which are comparable and, in some cases, nearly identical to those secured by Karlbeck.⁴ Such evidence indicated that this designation could no longer be synonymous with a regional style; more significantly, it questioned the actual provenance of the original "Huai" exemplars themselves. Few mirrors have been scientifically excavated from Warring States sites in this region. Their notable absence, for instance, from among the objects unearthed from the rich burial of the Marquis of Cai, excavated at Shou xian in 1955, has remained inexplicable.⁵ This lack of archaeological evidence, coupled with the close formal relationship between many of Karlbeck's finds and those unearthed from burials in Changsha, has occasioned speculation that the Swedish collection may have originated in this major Chu center.⁶

However, countering the scholarly assertion that the Shou xian mirrors actually came from Hunan, Li Xueqin has observed that Karlbeck's acquisitions, "based on the sphere of his activities, could hardly have included artifacts from Changsha."⁷ Karlbeck himself recorded that he had "during many years' residence in Anhui and Kiangsu collected many mirrors, *all coming from the Huai valley*".⁸ He also specified that the majority were "exhumed" in the vicinity of Shouzhou, a city which had been known as Shouchun in the Zhou period, when it served briefly as a Chu capital in the final decades of the Warring States era.⁹ Karlbeck offered specific information about the Shouzhou mirrors in a volume of anecdotal reminiscences entitled *Treasure Seeker in China*. According to this source, Karlbeck traveled from his residence in Shanghai to visit a Shouzhou dealer, simply identified as Xie, who had access to ancient weapons, bronze vessels and mirrors.¹⁰ Living in the Xie household during his stay, Karlgren records that "soon peasants began appearing with mysterious little parcels;" the majority of the items offered for sale were mirrors.¹¹ He purchased

4. Reviewing the mirrors recovered at Changsha in the early and mid-fifties, archaeologists noted that a significant number bore "a striking resemblance to those reportedly unearthed by tomb robbers from Chu tombs in the Shou xian region before World War II, so much so that some of them could have very well been passed off as coming from the same mould" ("Changsha chumu," p. 60; translation after Dohrenwend, "The Early Chinese Mirror," p. 82).

5. Dohrenwend, pp. 81-82; Lawton, *Chinese Art of the Warring States Period*, p. 82.

6. Gao, "Cong Changsha," pp. 64-66.

7. Li, *Eastern Zhou*, p. 302.

8. Orvar Karlbeck, "Notes on the Archaeology of China," *BMFEA* 1930 (2), p. 205. (NB: emphasis added by the author).

9. Referring to the provenance of his mirror collection, Karlbeck observed that "the major portion of them have been exhumed near Shou-chou, which lies on a tributary of the Huai-ho and was once for a short time the capital of the Ch'u kingdom" ("Notes on the Archaeology of China," p. 205). Objects unearthed in precincts of modern Shou xian, such as the lead tile bearing the inscription "Shouchun" from Lisangudui in Zhujiaci have allowed archaeologists to associate Shou xian with the ancient Chu capital, founded by Kaolie Wang in the third century B.C. (refer to Li, p. 167, for discussion and citations). Karlbeck's observation on the relationship between "Shou-chou" and the ancient Chu capital was based on the earlier comments of Édouard Chavannes (*Mission archéologique dans la Chine septentrionale* (Paris, 1913-15) IV, p. 337).

10. Orvar Karlbeck, *Treasure Seeker in China* (London: Cresset Press, 1957), p. 167.

11. *Ibid.*, p. 168.

\$18,000.00 worth of objects for various Swedish collections during his only documented visit to the city.¹² This cache, along with numerous other mirrors collected during his twenty years of residency in China, served as the basis for considerable scholarship in the succeeding decades; Bernhard Karlgren, Liang Shangchun and Umehara Sueji, among others, published these objects within their writings on the early Chinese mirror.

Karlbeck's recollections of his purchases in the Huai valley strongly suggest that the material was unearthed locally; even Xie himself was unlikely to have had contacts with dealers or looters beyond his immediate locale. Karlbeck noted that his shop consisted of two rooms of "rubbish," and that he kept his few treasured antiquities under his bed.¹³ Therefore, although a significant disparity exists between the abundance of the mirrors secured by Karlgren in Shou xian and the paucity of comparable archaeological material recovered there since the founding of the People's Republic, the Swedish collection should nevertheless be regarded as supporting evidence for the presence of mirrors in the Huai valley during the late Zhou period.

Scholars such as Li Xueqin, who favor a local provenance for the Karlbeck mirrors, have noted that Changsha and Shou xian were part of the Chu state in the Warring States period;¹⁴ this suggests that both political and cultural factors could have promoted a uniformity in mirror styles between the regions. As noted above, Shou xian is located on the site of Shouchun, an ancient city which had served as a Chu capital. Indeed, the Chu presence in this district was a decisive factor throughout the late Zhou period. The bronze mirror bears witness to this fact; it is undeniable that striking stylistic similarities do exist between examples excavated in Hunan and those collected by Karlbeck. However, it is also noteworthy that the Swedish collection included a small group of mirrors that have yet to find counterparts among those from Chu sites to the south and west. Judging from Karlbeck's own accounts, he collected "Huai" style mirrors from areas of modern Anhui, Jiangsu and Zhejiang provinces; portions of these regions were independent kingdoms until the latter part of the fourth century B.C. Therefore, it is important to examine these distinctive mirrors as a part of a possible tradition that antedated Chu hegemony in this portion of southern China.

II. The Appearance of Reflective Objects in the Southeast

Within Bernhard Karlgren's exhaustive classification scheme for early Chinese mirrors, he placed an example, procured by Karlbeck from a dealer in Shanghai, into his earliest ("A") category (Fig. 59).¹⁵ The mirror was said to be from the Huai valley, although this attribution might appear suspect in light of more recent archaeological evidence. It is nearly identical to the example excavated from the late Spring and Autumn burial (M7) at Niujiapo in Shanxi province. Both objects share two concentric registers, one each fashioned in the cowrie and rope pattern, which encircle a medallion containing three sinuous dragons. The animals, positioned

12. *Ibid.*, p. 169.

13. *Ibid.*, p. 167.

14. Li, p. 302.

15. Bernhard Karlgren, "Early Chinese Mirrors: Classification Scheme Recapitulated," *BMFEA* 1968 (40), p. 81.

around the central boss, are surrounded by a finely granulated surface. The place of manufacture for the Shanxi mirror has been discussed in detail in Chapter Three; its imagery closely resembles that found on a mirror mold recovered at the Houma foundry site. Such details as the cowrie and rope bands, as well as the treatment of the animals, parallel imagery associated with the Jin bronze tradition.

This excavated evidence would strongly argue for a Houma provenance for the mirror collected by Karlbeck. Its close resemblance to the example from Niujiapo would further suggest that it might have originally come from a Jin tomb in Shanxi. However, a "southern" find locale for the object cannot be entirely discounted; bronzes have been unearthed in the Yangzi valley region that are strikingly similar to those from Jin sites. For example, a *he* vessel recovered at Huqiu in Suzhou closely compares to an example from M36 at the Jin cemetery complex of Fenshuiling.¹⁶ The burial at Huqiu has been associated with the Yue kingdom, who defeated the Wu state in this region in the course of the late sixth and early fifth centuries B.C. The Wu and Yue ruling houses held successive control over considerable territory in modern Jiangsu, Anhui and Zhejiang provinces and were both known admirers of royal Zhou traditions. Yue leadership was ultimately destroyed when a successful Chu invasion was launched in 334 B.C. The Wu-Yue bronze legacy has been well documented, as its ritual vessels, swords and bells were often cast with lengthy inscriptions and dedications. Li Xueqin has categorized certain bronzes of this type as reflecting "the deep influence of the people from the north."¹⁷

The appearance of a mirror relating to the Houma tradition in an area associated with the Wu and Yue would, therefore, not be improbable. The possibility of such interaction has gained more credibility with the publication of a richly furnished burial (M306) at Shaoxing in Zhejiang province.¹⁸ The occurrence of objects such as distinctive pottery *mingqi* vessels, resembling those from Huqiu, suggested to archaeologists that the site may have been associated with the Wu/Yue culture prior to the Chu conquest.¹⁹ On the basis of comparable excavated evidence, the burial has been attributed to the "first period of the Warring States," which would presumably suggest a date in the late fifth or early fourth century B.C.²⁰ Certain bronze objects found within the tomb are of considerable significance to the study of the Wu/Yue culture, such as an architectural model housing musicians and singers within its rectangular, roofed enclosure and a stand decorated with images of birds and supported on the backs of a quartet of kneeling figures.

For the present analysis, however, the most important funerary object from M306 was one of far more modest size and ornamentation. Discovered among the ritual vessels was a small bronze disk identified in the archaeological report as a *yangsui* (Figs 60 & 61).²¹ This term, noted in Chapter Two, was used in ancient texts

16. "Jiangsu Huqiu Dong Zhou mu," *WW* 1981 (11), p. 52, fig. 4; "Shanxi Changzhi Fenshuiling" *KG* 1964 (3), p. 119.

17. Li, p. 201. In his discussion of the presence of northern influence in the Wu and Yue regions, Li quotes the following from Yang Guan: "At least beginning in the late Spring and Autumn period the Yue people had begun to assimilate with the Huaxia group and the relationship between the southern Yue and the Central Plains had become rather close" (Yang, *Zhanguo Shi* (Shanghai: Renmin chubanshe, 1980), p. 267).

18. "Shaoxing 306 hao Zhanguo mu fajue jianbao," *WW* 1984 (1): 10-21.

19. *Ibid.*, p. 21.

20. *Ibid.*

21. *Ibid.*, p. 17.

to refer to a speculum or “burning mirror,” an object used to ignite tinder.²² The disk from Shaoxing displays a concave reflective face with a decorated, knobbed surface on the reverse. From the art historical perspective, the style of the surface decoration is particularly significant; consisting of a quartet of curvilinear dragons on a granulated surface, the ornament immediately suggests comparison with the mirror from M7 at Niujiapo, as well as the example purchased by Karlbeck in Shanghai. However, in its size and shape, the Shaoxing disk does differ from the mirrors cited above. While the latter objects are flat, the bronze from M306 is decidedly concave; in contrast to the 10 cm diameters possessed by the Shanxi and Stockholm reflectors, the *yangsui* measures only 3.6 cm. While these differences are not to be minimized, decorative similarities also hint that these objects may derive from a common source. There is precedent for this possibility in the earlier history of the mirror in China; as noted previously, “mirror shaped” objects, excavated from a Western Zhou burial in Hebei province have been subsequently identified as *yangsui*.

Some of the earliest references to the firemaker appear in the *Huainanzi*, an anthology compiled in the Western Han period; one citation, for example, notes that “when a *yangsui* is exposed to the sun, it burns and makes fire.” In his commentary on this passage, Gao Yu (fl. A.D. 205–212) observes that:

The *yangsui* is of metal. One gets a metal cup without a rim (i.e., a concave object), rubs it ardently until it becomes hot, faces it to the sun when the sun is at its meridian, and puts artemisia before it. It will then burn and make fire.”²³

The *Zhouli* mentions the coeval use of the two types of reflectors, indicating that ritual officiants used the speculum to obtain “sacramental fire from the sun,” while the *jian* — the term that came to be associated with the flat, polished bronze object known as the “mirror” — provided the “sacramental water from the moon.” It was noted that these operations were carried out “in order to supply the sacramental flares and the sacramental water for the sacrificial millet used in sacrifices.”²⁴

From this description it may be possible to identify a pictorial representation of a firemaking ritual that has been preserved on a fragment of a hammered bronze vessel excavated from a late Spring and Autumn period tomb of the Wu state at Chengqiao in Liuhe (Jiangsu province) (Fig. 62).²⁵ Needle-incised designs feature various figures engaged in what appears to be a ceremonial activity. One individual moves away from the scene at the left, carrying a pedestaled vessel with a concave bowl. Parallel striations issue forth from the basin, suggesting flames or steam. Beside this figure are a pair of confronting participants, who flank a tall stand that

22. Early textual references to an object known as a *yangsui* suggest that it was used to ignite tinder; it figured as a significant component of the seasonal rites involving the “renewal of fire.” Derk Bodde suggests that the term *sui* referred generally to a “firemaker” or “fire drill”, which may have initially been no more than a sharpened stick rotated into a piece of wood. This process may have resulted in the age-old association between the word *sui* and the property of concavity. Concave bronze disks used to create fires were specified by the prefix “*yang*.” Bodde suggests that this usage “refers not only to the *yang* principle but more specifically to the sun, the essence of *yang*.” (*Festivals in Classical China* (Princeton: Princeton University Press, 1975), pp. 299–300).

23. *Huainanzi*, 3:2 a; translations after Bodde, p. 300. For additional discussion and literary references to the use of the *yangsui*, consult Joseph Needham, *Science and Civilization in China* (Cambridge: Cambridge University Press, 1962) IV/1, pp. 87–88.

24. *Zhouli*, 36:13b; translation after Bodde, p. 300.

25. “Jiangsu Liuhe Chengqiao Dong Zhou mu,” KG 1965 (3), p. 114, Fig. 13.

may hold flaming tinder. One of the figures is seated while the other stands over the "fire". To the right, a figure in a robe and distinctive tripartite headdress grasps a long-handled pole. Perhaps this object represents an example of the "sacramental flare" used to prepare sacrificial offerings.

Another pictorial bronze vessel, unprovenanced and perhaps slightly later in date than the needle-incised example from Jiangsu, may also display visual references to firemaking rituals. Scenes on the interior of an oval wine cup, now in the Shanghai Museum, would suggest such a reading.²⁶ On the uppermost register, a kneeling figure appears to extend a long pole into the blazing fire; on the register below, individuals carrying sacrificial vessels approach an architectural enclosure. References to the presence of fire occur on a number of pictorial bronzes from the early Warring States period; examples suggest that torches or flares were both carried and placed in the ground.²⁷

The imagery on these vessels offers an insight into the possible ritual significance of certain objects unearthed at M306. The model of the bracketed structure with figures inside, for example, may have replicated the ceremonial enclosures that were commonly featured on the pictorial bronzes. In addition, the stand found at Shaoxing could have been used as a tinder-holding container, as suggested by the image illustrated on the Jiangsu fragment. A fire-producing device would suggest itself as a likely accompaniment to these objects. If firemaking was a constituent of ceremonial practices in this and other regions during the period, then it is not improbable that polished circular disks could have been components of these activities. Perhaps the earliest mirrors introduced into the Huai region from the north were adopted into usage for this purpose; from this functional/ceremonial role, they may have developed specific associations with the cosmological principles that informed these rituals.

If this was the case, then it would be possible to distinguish factors that contributed to the reception of the mirror in the Huai region from those of the Zhongyuan. Previous chapters have discussed the influence of northern disk burials and the appropriation of the circular reflector and *danglu* as tomb furnishings; these objects, initially produced in China for the Jin elite, were readily transformed in the early Warring States period into the often lavish objects of the Zhou royals. In the southern areas, the introduction of the mirror may be more closely related to the ritualized use of *yangsui*, rather than to the adaptation of practices from the northern frontier. The coeval interment of the mirror and circular frontlet, for example, has yet to be identified at a published site from below the Yellow River. Therefore, it is important to recognize that the early development of China's mirror tradition should not be posited in terms of a single set of cultural or regional conditions.

Considerably more excavated evidence will be necessary, however, before the relationship between the origins of the mirror in the south and the occurrence of

26. *Shanghai bowuguan*, pl. 90.

27. Freestanding torch-like objects are depicted flanking a pair of dancers on a fragmentary *yi* vessel, presently in the collection of the Seattle Art Museum (Charles D. Weber, *Chinese Pictorial Bronze Vessels of the Late Chou Period* (Ascona: Artibus Asiae, 1968), Fig. 21:c). A pole with striations issuing forth from the top, in a manner reminiscent of the depiction on the Chengqiao fragment, is held by a figure on a *yi* in the Palace Museum collection (Weber, Fig. 26:g, after WW 1962 (2): 3). A smaller version of this object is carried by ritual participants depicted on a *lian* vessel excavated at Liulige (*Shanbiaozhen yu Liulige*, Fig. 29).

fire-related rituals can be conclusively established. The above reading of the Jiangsu fragment would suggest that such activities were practiced in this region by the late Spring and Autumn period; therefore, it may eventually be possible to argue that the decorated mirror of the northern tradition found a role within rituals which were already in practice well to the south. Perhaps simpler, unadorned disks or buttons had previously served as *yangsui*. The evidence offered above does suggest that the earliest ornamentation was inspired by the mirrors of the Jin tradition. Such a relationship is also suggested by a second style of mirror collected by Karlbeck in the Huai region. The remaining portion of this chapter will examine an early manifestation of a motif commonly known as the mountain (*shan*) pattern, which would ultimately become one of the most popular Warring States mirror styles.

III. Early Huai Mirrors with the Trident (*shan*) Motif

When Bernhard Karlgren confronted an unusual trio of mirrors bought by his colleague "in the Huai valley region,"²⁸ he classified them as "early examples of the Shou hsien type which display beautifully drawn and realistic animals."²⁹ One example was a square mirror with a quartet of creatures surrounding a star-encircled central boss (Fig. 63). Heavy surface encrustations now obscure the zoomorphic imagery; it is still possible, however, to recognize depictions of three doe and a dog at equidistant points around the surface. Square mirrors have been previously introduced in Chapter Four, where it was noted that the rare excavated example of a double tier mirror was fashioned in this shape (Fig. 50). This latter object, recovered from a burial in Changsha, resembled other unprovenanced square reflectors. Joseph Needham observed that the mirror used for the collecting of the ceremonial moon dew (the "sacramental water from the moon" cited above) may have been square in shape;³⁰ if this were the case, perhaps the star motif at center refers to this nocturnal function.

Karlgren noted that "although the animals resemble those on bronzes from Suiyuan, all known mirrors of this type have been found in the Huai valley."³¹ He suggests that this object may have been a northern import or perhaps a local copy. Imagery found on pictorial vessels offers a possible source of inspiration for the mirror ornament. Representations of collared dogs, similar to those found on the mirror, occur on the fragment of a basin discovered in the northern site of Liyu,³² as well as on the basin introduced above from the collection of the Shanghai Museum. Doe also appear on the Liyu example; in addition, animals of this species may be identified beside the dogs on the Shanghai vessel. The latter object also displays a pair of horned ibex (?), whose front legs curl under in a manner paralleling that of the doe on the Huai mirror.

28. Karlgren, "Huai and Han," pp. 13-15.

29. Karlgren, "Early Chinese Mirrors," p. 83.

30. "If moon-mirrors were so shaped (i.e., square) it would have been quite in accord with theory, since roundness pertained to Yang and heavenly fiery things, while squareness pertained to Yin and earthly watery things" (Needham, *Science and Civilization*, IV/1, p. 90).

31. Karlgren, "Huai and Han," p. 13.

32. Weber, *Pictorial Vessels*, Fig. 13:a, d.

It remains impossible to securely identify a place of manufacture for the square mirror; at present, its form and imagery distinguish it as unique. However, there are important parallels between this object and the two round mirrors that Karlgren classified with it (Figs 64, 65). Virtually identical animal depictions are found on all three reflectors; one of the circular examples features a zoomorphic trio rather than a quartet (Fig. 64), although the dog and two doe are unmistakably related in style to the animals on the square mirror. What distinguishes the round counterparts is the inclusion of another dominant surface motif. Between each animal representation, both mirrors display a linear configuration reminiscent of the character *shan*; three parallel projections emanate from a common perpendicular bar, with the central element considerably taller than the two that flank it. Boldly outlined on a ground of "Huai" striations and curls, these images punctuate the surface at equidistant intervals. While the appearance of this trident motif would become widespread in the course of the late Eastern Zhou period, the image's origins and iconography have never been conclusively identified.

T-shaped designs were not uncommon in early China. This motif, as Max Loehr noted, occurred as part of the Shang bronze repertory; he identifies its sources with ornamentation found on pottery from the Neolithic period.³³ Karlgren suggested that the use of this design on Zhou mirrors was a revitalization of a Shang bronze pattern. He compared the motif found on the Huai reflectors to surface ornament on a *ding* vessel from the Museum für Ostasiatische Kunst in Berlin.³⁴ Certain scholars, however, have argued for a more specific "reading" of the image. As William Watson noted:

The T-figure resembles the ideograph for "mountain" and its popularity was perhaps owed to an auspicious association, for the definition of the word by the *Shuo Wen* dictionary reads: "Mountain stands for good order; meaning that it suitably scatters the humours and produces the myriad things of creation."³⁵

Watson's argument for a literal interpretation of the design finds tacit support in the work of Komai Kazuchika, who offered an analysis of the *shan* pattern in his study of Chinese mirrors, entitled *Chūgoku kokyō no kenkyū*.³⁶ Komai, however, resists offering any conclusive iconographic identification. He notes that Warring States period roof tiles often bore tripartite images that are designated as mountains; he does not specify, however, whether he considers the source of this representation to be pictorial or pictographic.³⁷

It may be postulated that the *shan* mirror style emerged from both an earlier design precedent and a contemporary symbol system. What is most important about this duality is the fact that these sources should not be regarded as mutually exclusive. The reappearance of the so-called "interlocking T" pattern in the Eastern Zhou period does not appear to have been a casual appropriation of a Shang decorative convention. It is noteworthy that this surface motif was a constituent of

33. Loehr, *Ritual Vessels*, p. 12.

34. Karlgren, "Huai and Han," p. 14.

35. William Watson, *Ancient Chinese Bronzes* (London: Faber and Faber, 1977), pp. 92–93.

36. Komai Kazuchika, *Chūgoku kokyō no kenkyū* (Tokyo: Iwanami, 1953), pp. 72–76.

37. *Ibid.*, p. 75.

the bronze ornament found on objects unearthed at the fifth century B.C. tomb of the Marquis of Cai in Shou xian.³⁸ It may be possible to suggest that a renewed interest in T-shaped patterns arose from an association between this configuration and current ritual iconography. While a visual relationship to the pictograph read as *shan* is indisputable, it is also possible to identify this motif within ceremonial imagery of the late Spring and Autumn and early Warring States periods.

For this evidence, it is necessary to turn again to the documentation offered by the pictorial bronze vessels. It was noted above that ritual ceremonies were often depicted on these objects and that fire-related activities, which perhaps required some form of a bronze reflector, may have been a possible subject. Tridents or *shan* configurations appear within a number of these representations. A notable example is the representation found on a fragmentary *yi* vessel from a second site, also associated with the Wu state, in the Liuhe district of Jiangsu; its imagery features various kneeling figures who make offering within a structure topped by trident-shaped roof ornaments.³⁹ Dated to the late Spring and Autumn to early Warring States period, the object relates closely in style to the fragment discussed above from the neighboring village of Chengqiao. Two other vessels – a *yi* excavated at M12 at Fenshuiling in Shanxi province (Fig. 66) and a *jian* unearthed at M1 at Guweicun in Hui xian (Fig. 67) – record the presence of similar tripartite configurations atop ceremonial enclosures.⁴⁰ It has already been cited in this chapter that the officiants portrayed on the pictorial fragment excavated in Jiangsu were shown with a distinctive form of three-prong headdress. Similarly styled head ornaments are present on several of these vessels, including the previously cited example from the Shanghai Museum⁴¹ and a *pan* from the Palace Museum in Beijing (Fig. 68).⁴² A configuration in the *shan* form also issues forth from the head of a fantastic, double-bodied creature on a *yi* vessel from M2144 at Houchuancun in the Chen district of Henan province.⁴³

An iconographic identification of these various tripartite images has yet to be determined. However, in a recent discussion of a bronze trident excavated from a Western Zhou burial in Luoyang, Cai Yunzhang presents a useful examination of the historical precedent, function and significance of this distinctive object.⁴⁴ He notes the formal similarity between the Luoyang example and the set of eleven *shan*-shaped standards excavated from the late Warring States royal burials associated with the state of Zhongshan at Pingshan in Hebei province.⁴⁵ Cai argues that this type of object does not represent an exclusively Zhou convention; instead, he suggests that staffs or banners with trident finials may have been in use for military and ceremonial purposes throughout the Bronze Age. Citing early evidence for such objects in Shang period oracle bone and bronze inscriptions,⁴⁶ Cai contends that the

38. *Zhongguo Shouxian Caihou mu chutu yiwu* (Beijing: Kexue chubanshe, 1956), pls. 73:3, 91:1.

39. "Jiangsu Liuhe xian Heren Dong Zhou mu," *KG* 1989 (5), p. 300, Fig. 6.

40. "Shanxi Changzhi Fenshuiling gumu de qinli," *KGXB* 1957 (1), p. 109, Fig. 2; *Huixian fajue baogao*, Figs 137, 138.

41. *Shanghai bowuguan*, pl. 90.

42. "Zhangguo kehui Yanyue huaxiang tongqi," *WW* 1962 (2), pp. 3, 4, 52.

43. "1957 nian Henan Chen xian fajue jianbao," *KG* 1958 (11): 513–514.

44. Cai Yunzhang, "Tongganshou kao," *KG* 1987 (8): 745–748, 754.

45. "Hebei sheng Pingshan xian Zhangguo shiqi Zhongshan guo muzang fajue jianbao," *WW* 1979 (1):1–31. The tridents are illustrated *in situ* on p. 29, figs. 40, 41.

46. Cai, p. 746.

shan tridents were considered important symbols of authority and power from the Anyang era onward. He also noted textual evidence for the display of these objects on the top of structures;⁴⁷ perhaps the imagery depicted on the *yi* vessels, cited above, illustrates this practice.

It is possible to argue that the formal similarity between the tripartite imagery discussed above and the motif found on Warring States mirrors was conscious rather than coincidental. Cai cites descriptions of bronze tridents as “sun banners,”⁴⁸ suggesting that their metal surfaces were recognized as solar reflectors. This property would have enhanced their visibility from a distance – a significant feature that Cai maintains was used to intimidate enemies and then adopted for unspecified “ceremonial” purposes. Therefore, the appearance of the *shan* configuration on bronze mirrors may have specifically related to an established association between ritual activity and trident-shaped reflectors. It is noteworthy that the practice of placing such an object atop a structure may have served as the precedent for the appearance, in the late Warring States and Han periods, of roof tiles ornamented with the “mountain” motif, such as those identified and discussed by Komai Kazuchika.

An analysis of the significance of the *shan* motif on bronze mirrors must also address the issue of periodization. Karlgren considered the examples with animals, collected in the Huai region, to be the earliest manifestation of this style.⁴⁹ The close formal relationship between the zoomorphic imagery on these mirrors and that found on certain pictorial bronzes would support Karlgren’s assessment. The fragmentary vessel from Liyu, with dogs and doe similar to those found on the mirrors, probably dates to the late Spring and Autumn period.⁵⁰ At present, there have been no mirrors displaying the *shan* motif excavated from sites that predate the middle Warring States era. The rarity of the examples collected by Karlbeck may indicate that this “animal and trident” style – which has, to date, no excavated counterpart – may have been a relatively short-lived phenomenon.

While the earliest adaptation of the *shan* motif may have occurred on mirrors with animal imagery associated with the upper course of the Yellow River, evidence strongly suggests that its origins as a major style occurred in the south; the following chapter will discuss the presence of these mirrors in burials associated with both the Yue and Chu. Excavated material to date indicates that this style was not in production in the north until the late Warring States period;⁵¹ the fragmentary *shan* mirror, recovered at a fifth century B.C. kurgan in the Altai Mountains of Siberia,

47. *Ibid.*

48. *Ibid.*, pp. 746–747.

49. Karlgren, “Huai and Han,” p. 13.

50. Lawton, *Chinese Art of the Warring States Period*, p. 52; Loehr, *Ritual Vessels*, pp. 144–146.

51. The association between northern foundries and the *shan* mirror style was initially proposed by Liang Shangcun; he published eight casting molds for mirrors with trident imagery that were reported to be from the village of Tanghu in the Yi district of Hebei province, in the vicinity of the ancient Yan capital of Xiadu (*Yanku cangjing*, I, pls. 8–15). If these mirrors were produced at this site, it is likely that their manufacture dates from the late Warring States period, as the Yan ruler, Zhaowang, did not establish his royal precincts here until that time (Li, p. 111). As the vast majority of trident style mirrors from the south have been recovered at sites dated to the middle Warring States period, these mirrors may have disseminated northward from areas associated with Chu.

was in all probability cast well to the south of the Sino-Mongolian frontier.⁵² Karlbeck collected over fifty *shan* mirrors in the Shou xian area alone. Numerous examples have been excavated at Changsha and other sites in Hunan; others have been reported—in considerably fewer numbers—from sites in Hubei, Shaanxi, Henan, Hebei and Sichuan provinces.⁵³ The development of this mirror type in the middle Warring States period may have resulted from contact between populations residing in the lower Yangzi region and those from the politically ambitious state of Chu; a discussion of this interaction will be presented in Chapter Six.

The impetus for the introduction and distribution of the mirror below the Yellow River, however, cannot be explained simply in terms of Chu hegemony. A context for mirror usage must have existed in these regions; in order to consider the circumstances surrounding the reception of this object in the south, it has been necessary to examine the earliest evidence. At present, material from the Huai region offers the only resource for the study of this object in southern China before the florescence of the so-called “Chu mirrors” in the later Warring States period. The examination above indicates that the current paucity of archaeological evidence only allows for cautious speculation. An association with the creation of fire—and perhaps broader cosmological values—may have been invested in bronze reflectors from an early period in the south; the *yangsui* from Shaoxing offers the suggestion of this possibility. As noted above, decorated mirrors coming from the Jin foundries into the Huai region may have replaced small button-like disks used to ignite tinder; from this context, mirrors may have eventually acquired certain metaphysical properties that were noted by the Han commentators cited above.

While a reconstruction of the earliest history of the Chinese mirror in the south requires a considerably fuller archaeological record, its subsequent development is amply documented by a wealth of excavated evidence. In the course of the fourth century B.C., mirrors were produced in unprecedented numbers; this period marks the emergence of a variety of distinctive styles of surface ornamentation. These objects have traditionally been classified as “Chu mirrors,” although archaeological evidence suggests that this corpus is considerably more diverse than its designation would imply. The following chapter will introduce both the ethno-cultural and formal issues that contributed to the culmination of mirror production in Bronze Age China.

52. The remains of a bronze mirror displaying the *shan* motif was recovered from Barrow 6 at Pazyryk, a site in the Altai mountains due north of the Sino-Mongolian border. Excavated in 1949, this burial was one of about forty tombs discovered in this district; all of the barrows had been looted in antiquity, although several still contained extensive furnishings. Number 6 was relatively modest in size and housed the skeletal remains of two females—one adult and one child—and three horses. A small number of objects, including items of jewelry and horse fittings, were also recovered. Chinese silks were found in other burials, suggesting to archaeologists that the culture of the central Altai had commercial relations with the Chinese. (Sergei I. Rudenko, *Frozen Tombs of Siberia: the Pazyryk Burials of the Iron Age Horsemen* (trans. by M.W. Thompson) Berkeley; Los Angeles: University of California Press, 1970); the mirror noted above is illustrated on p. 115, Fig. 55 and pl. 70:c.

53. Higuchi, *Kokyō*, pp. 54–56.

Chapter Six

Mirrors in the State of Chu: Aesthetic and Cultural Issues

The final two centuries of the Zhou period witnessed the unprecedented florescence of mirror production within areas to the south of the Yellow River. Chapter Five of this study has offered a reconstruction—based on available archaeological and stylistic evidence—of certain conditions that may have presaged this phenomenon. While the definitive history of Warring States mirrors in the south is dependent upon a significantly fuller record than is accessible at present, excavations have nevertheless supplied a considerable amount of data; indeed, more mirrors have been recovered from these sites than from all those of preceding periods throughout China. Utilizing this material, one is therefore able to formulate certain cultural and formal issues.

I. Chu Mirrors: The Problem of Definition

The preponderance of mirror discoveries in regions associated with the State of Chu has allowed archaeologists and art historians to associate this culture with mirror production and use in the middle and late Warring States period. The term “Chu mirrors” is widely used to identify objects recovered in areas that were under the control of this powerful kingdom.¹ This usage implies the existence of both political and cultural uniformity in the Chu realm; textual and archaeological evidence, however, counters this assumption with a record of diverse populations who gradually fell victim to Chu hegemony. Therefore, any examination of mirrors recovered from areas politically aligned with Chu must also consider the possible contribution of other local traditions.

The recognition of potential cultural diversity among “Chu mirrors” necessitates a re-examination of the scholarly methods used to examine this corpus. Treating the excavated material as a unified body of data, art historians and archaeologists have focused upon systems of classification based on comparative styles of surface imagery. In 1960, eleven categories of Chu mirrors were identified in the introduction to the pictorial monograph *Hunan chutu tongjing tulu*;² since its

1. Lei Congyun discusses this usage in the preface to his lengthy essay on the classification and periodization of “Chu style mirrors” (Chapter Five, n. 1). The designation is frequently encountered in both the archaeological and art historical literature; for examples, refer to *Hunan chutu tongjing tulu*, p. 6; Liu Yiman, “Taolun Zhanguo tongjing de fenqu,” *KG* 1985 (11): 1008–1009; Watson, *Ancient Chinese Bronzes*, p. 93.

2. *Hunan chutu tongjing*, pp. 6–10.

publication, this schema has been widely cited in writings on Chinese mirrors.³ While the usefulness of such formal categorization is indisputable, it is also necessary to examine the complete archaeological record associated with these various styles. This latter method of analysis allows for a fuller consideration of issues involving periodization and regional distribution, which are of primary significance to an understanding of this important epoch of Chinese mirror production.

The preceding chapter offered evidence of mirror use in areas of the Huai river region in the early Warring States period. It was suggested that cultural interaction between the Jin kingdom and states in the lower Yangzi, such as Wu and Yue, may have resulted in the introduction of mirrors from the Houma workshops into the south. As noted in Chapter Five, there is at present little excavated evidence to suggest that decorated mirrors were in use in Chu-controlled territories prior to the middle of the Warring States era. Therefore, the possibility that mirrors initially entered into the Chu tradition through the conquest of other southern populations would not appear untenable. An examination of the earliest mirrors found in the Chu state also offers support for this hypothesis. A significant number of middle Warring States burials that contain mirrors are explicitly associated in the archaeological literature with non-Chu occupants;⁴ the most common identification is with the Yue people, who have been suggested as early mirror-users in the preceding chapter. In light of this contextual issue, it becomes necessary to restructure an appraisal of Chu mirrors, focusing on chronological and cultural distinctions rather than broadly defined formal categories.

In his discussion of the regional distribution of Warring States mirrors, Liu Yiman associates five provinces with the Chu tradition: Hunan, Hubei, Jiangsu, Anwei and the southern portion of Henan.⁵ While all these areas were under Chu control in the late Zhou period, there has been a significant difference in the recorded incidence of mirrors within the five provincial regions. As discussed in Chapter Five,⁶ the number of these objects excavated in the lower Yangzi region to date has been negligible; more examples have been recorded from sites in Hubei and southern Henan, as well as neighboring Sichuan, although the number of published objects still remains quite limited.⁷ The overwhelming majority of both middle and late Warring States examples have come from Hunan. At present the largest number of these have been excavated in the area of Changsha,⁸ which served in the late Zhou as the southernmost extension of Chu power.⁹ In contrast to the rich discoveries in this urban center, there has been little evidence for the presence of

3. Lei uses these categories as the basis for his detailed system of classification ("Chu shi jing," pp. 20–28). These designations also inform the stylistic vocabulary used by Higuchi (*Kokyō*, pp. 46–60), Li (*Eastern Zhou and Qin Civilizations*, p. 302) and Liu ("Taolun Zhanguo tongjing," p. 1009), among others.

4. The incidence of mirror burial at sites associated with the Yue will be discussed in detail within this chapter. It should also be noted that Liu Yiman suggests a possible relationship existed between mirror use in Sichuan and the Chu and Ba populations. He concludes, however, that at present there is a paucity of excavated evidence to verify this observation ("Taolun Zhanguo tongjing," p. 1009).

5. Liu, "Taolun Zhanguo tongjing," p. 1008.

6. The disparity between archaeological data and unprovenanced material from the Jiangnan region is detailed at the beginning of Chapter Five.

7. The most comprehensive summary of excavations in these provinces that have yielded "Chu style mirrors" is provided by Higuchi in his chapter on Warring States mirrors in *Kokyō* I, pp. 45–81.

8. Gao, "Cong Changsha," pp. 61–63. For a discussion of the literature on Changsha mirrors, refer to note 1 of the preceding chapter.

9. Li, p. 169.

decorated "Chu style" mirrors in the Jiangling area of Hubei. This latter region is thought by many scholars to be the site of the Chu royal capital of Jiying.¹⁰ The absence of this object may suggest that mirrors were not buried widely with the Chu ruling class – a possibility that appears to be confirmed by examining the contents of major elite burials. Of the eighteen large tombs discussed by Li Xueqin in his chapter on Chu in *Eastern Zhou and Qin Civilizations*, none have decorated mirrors cited in their excavation reports.¹¹

It is evident from the material introduced above that considerable caution must be used in defining this mirror tradition. Broad stylistic or geographic characterizations do not provide a satisfactory basis for a rigorous art historical examination; the regionally disparate archaeological record makes it impossible to present a meaningful overview of the phenomenon known as "Chu mirrors." Therefore, the most constructive – and prudent – analysis would confine itself to a detailed examination of a specific body of available evidence. The corpus of mirrors that have been published from excavations in Changsha and neighboring areas of Hunan represents the fullest record to date. This chapter will use this material as the basis for its study of the development of the late Zhou mirror in the state of Chu.

The following analysis is organized as a two-part chronology: the early phase focuses on mirrors excavated from sites dated to the middle Warring States period, while objects from late burials constitute the second phase. It will be argued in the course of this chapter that aesthetic and cultural issues informed these distinctive temporal categories. When the archaeological record becomes more complete, the characterizations put forth below should remain applicable. The Hunan region – and particularly Changsha – was indisputably a major center for mirror production during this period; evidence suggests that objects produced here were disseminated widely. Reconstructing the constituents of this mirror tradition should, therefore, provide a foundation for the fuller assessment of late Zhou mirrors in the south – an undertaking that archaeological activity will undoubtedly make possible in the future.

II. Mirrors of the Early Phase

As the vast majority of mirrors recovered in Hunan have been the property of modest burials, the documentation on these sites is often abbreviated and incomplete. Although hundreds of mirrors have been recovered in Changsha alone since 1952, only a fraction of them have been cited in the literature.¹² *Hunan chutu tongjing tulu* inventories the contents of forty-five Warring States burials with mirrors, yet nearly 300 sites dating to this period yielded these objects before 1959.¹³ Nevertheless, this inventory offered important evidence of the burial context, revealing that mirrors were usually interred with a small number of ceramic or

10. Liu Binhui, "Shilun Chu Danyang he Yingdu du diwang yu niandai," *Jiangnan kaogu* 1980 (1): 45–57.

11. Li states that "we will use as examples fifteen large tombs of the state of Chu, in addition to three large tombs from the states of Cai and Zeng (or Sui), which were related to the Chu." They are listed on pp. 155–156 of *Eastern Zhou and Qin Civilizations*.

12. Gao, p. 62.

13. *Ibid.*, p. 66; *Hunan chutu tongjing*, pp. 20–21.

bronze vessels and, in some instances, weapons.¹⁴ The relative frequency of mirrors in small Changsha burials is in marked contrast to their absence from tombs whose contents suggest a ruling class Chu owner; the richly furnished burial of M406, for example, was published in 1957 and contained no mirrors, while these objects were recovered from significantly less opulent graves in the vicinity.¹⁵

In the past decade, excavation reports have begun to offer a more complete assessment of issues relating to sites containing mirrors. From this literature, contextual information has emerged that had previously been omitted from the archaeological record. An important example of the more comprehensive treatment of a modest burial containing a bronze mirror is found in the report on the excavation of M1 at Shumuling, a site in the southeast sector of Changsha.¹⁶ This tomb contained seven objects, including a bronze *ding*, two weapons and a decorated mirror, the latter displaying four "mountain" tridents on a ground pattern of relieved curls and striations.

The archaeological report does not assign a specific date to the site, only indicating that it was contemporary to other Changsha burials of the middle to late Warring States period.¹⁷ The most significant aspect of the analysis, however, was the identification of M1 as a non-Chu burial. Two excavated objects were used to support this assessment. The *ding* vessel, featuring a shallow bowl supported by thin, splayed legs, was compared to "Yue-style *ding*" excavated from sites associated with this state in Jiangxi and Hunan.¹⁸ The other object cited in this discussion was a distinctive knife whose hilt was fashioned in the shape of a human figure. The authors cite similar anthropomorphic imagery that has been found on weapons unearthed in Guangdong.¹⁹ Based on these archaeological parallels, the report concluded that M1 was a Yue burial and therefore more culturally akin to areas of the southeast than to the state of Chu.²⁰

The mirror (Fig. 69), while recovered beside the knife discussed above, was not used to support the identification of the burial. However, in light of material introduced in Chapter Five, this object could also have been offered as evidence of cultural affinities to inhabitants of the lower Yangzi valley. It has been suggested that the origins of the trident-style in mirror ornament may have originated in this region. Early examples of this motif, found on mirrors with animal images, were collected here by Karlbeck; archaeological evidence also suggests the use of this tripartite configuration for both ritual and decorative purposes.

While classifications of Chu mirrors place the mountain-character type as an early style, there is evidence that its manufacture continued into the Western Han period.²¹ Therefore, in examining the existing formal categories, it becomes

14. *Hunan chutu tongjīng*, pp. 20–21.

15. *Changsha fajue baogao* (Beijing: Kexue chubanshe, 1957), p. 23, Fig. 19; p. 25, Fig. 21; p. 26, Fig. 22.

16. "Changsha Shumuling Zhanguo mu Amiling Xi Han mu," *KG* 1984 (9): 790–792.

17. *Ibid.*, p. 791.

18. *Ibid.*; the authors cite comparable excavated material from Changsha, while only referring to the presence of "Yue style *ding*" in Jiangxi.

19. *Wenwu kaogu gongzuo sanshinian*, p. 337, Figs. 6, 8.

20. "Changsha Shumuling," pp. 791–792. The relationship between Chu and areas to the east that were associated with the Yue people is discussed by Li Keyou in his essay, "Dong Zhou shiqian Jiangxi diqu de Chu wenhua jiqi wenti," *Zhongguo kaogu xuehui dierci nianhui lunwenji* (Beijing: Wenwu chubanshe, 1980), pp. 56–58.

21. Li notes that the Western Han examples of this style "had relatively coarse background designs that were not as refined as earlier examples" (p. 306).

necessary to consider the evolution of a style in temporal terms. The mirror from Shumuling differs significantly from other examples that share in the use of this motif. This becomes apparent when comparing the example from M1 to a counterpart from a Chu site of the late Warring States period in Changde, Hunan province (Fig. 70).²² The mirror from Shumuling possesses a diameter of only 9.8 cm, making it considerably smaller than many examples; indeed, it is only half the size of the mirror from Changde. The “Yue” example features four tridents that surround a square enclosure at the center. The imagery has been ordered with a strong emphasis upon linearity. The inner edges of the tridents form a square that serves to echo the configuration at the center. The motifs are clearly separated from one another and elicit a sense of order and clarity. As Thomas Lawton notes in his description of an unprovenanced mirror of very similar style in the collection of the Freer Gallery of Art, “this arrangement (i.e., of the tridents) stabilizes the entire composition.”²³

The treatment of the surface imagery on the mirror from Shumuling is in sharp contrast to the example from Changde. One immediately notes an increase in number from four tridents to five—an addition that undermines the inherent stability of the quadrangle arrangement. The elongated central arm of each motif on the Changde mirror has been sharply tilted, resulting in what Lawton terms “visual restlessness.”²⁴ The formal emphasis is no longer on stasis, but on movement. In order to enhance this sensation, the curvilinear pattern generated by the tridents is reiterated by the placement of a circular medallion in the center. This approach to surface imagery can be situated within broader artistic concerns found in Chu culture; it will be reintroduced and considered as a manifestation of the “later phase.”

The above analysis would suggest the possibility that both aesthetic and cultural factors distinguish these two examples of “Chu” mirrors with *shan* imagery. In its quartet of motifs, square, central enclosure and “Huai” ground pattern, the example from Shumuling recalls the animal and trident reflectors collected by Karlbeck in the lower Yangzi region. This correlation would suggest a relatively early date for the mirror from M1, an observation that appears to be supported by the archaeological literature. A number of mirrors with similar surface patterns have been excavated from well-documented sites in Hunan that have been dated to the middle Warring States period. In comparing the Shumuling mirror to these other examples, another significant parallel emerges: a number of burials yielding this type of mirror have also contained objects identified as belonging to the Yue culture.

In 1982, forty-one burials dating from the Spring and Autumn and Warring States period were unearthed in Laiyang county in Hunan.²⁵ The archaeological report identifies this region of Hunan as home to the Baiyue people—the “Hundred Yue”—who were conquered by the Chu ruler Daowang in the middle of the Warring States period.²⁶ Burials of the Spring and Autumn to middle Warring States period are identified with the Baiyue, while the later tombs are associated with the Chu. The authors indicate that the interrelationship of these groups was an impor-

22. *Hunan chutu tongjing*, pl. 18.

23. Lawton, *Chinese Art of the Warring States Period*, p. 86.

24. *Ibid.*

25. “Laiyang Chunqiu Zhanguo mu,” *WW* 1985 (6): 1–15.

26. *Ibid.*, p. 12; Li notes Daowang’s conquest of the Baiyue as part of the Chu expansion into the south (*Eastern Zhou*, pp. 202–203).

tant factor in the cultural history of the south in the Eastern Zhou period and argue for a fuller examination of Chu/Yue traditions.²⁷

The Spring and Autumn burials of the Baiyue are extremely modest; most of the twenty-two tombs contained a single grave furnishing, consisting of a ceramic vessel, bronze weapon or a stone axe. The Warring States sites were somewhat more elaborate in their burial goods. Both those identified with the Baiyue and Chu housed sets of ceramic vessels, along with a fuller complement of weapons. Two of the Baiyue tombs also contained mirrors. The dating of these objects is discussed in the report; while the vessels found with them are of the early Warring States period, the authors assign the two burials (M2, M15) to the "early to middle" portion of the era.²⁸ From the archaeological evidence, the two examples from Laiyang can be regarded as among the earliest datable mirrors from a site in this region.

The mirror from M15, described as a "four mountain" mirror, is neither illustrated nor cited with its dimensions. However, the report does refer to it as a "style I" example, suggesting that its surface imagery relates to those mirrors with four tridents that have been recovered from middle Warring States burials in Hunan. The mirror from M2 is given somewhat fuller documentation and is illustrated. Its surface decoration is described as the "cloud design," which consists of an overall grid of tiny curls. This designation was first applied to mirrors excavated from sites in Changsha, such as examples from M896 at the Nianjiahu (Fig. 71) and M2 at Guihuayuan.²⁹ While these latter examples were not assigned a period within the Warring States era, their close stylistic relationship to the mirror from Laiyang would argue for a relatively early date. The interpretation of a "pattern" that is revealed by these mirrors exemplifies an important formal constituent of the early phase of the Chu mirror tradition. A number of middle Warring States sites have yielded mirrors that can be related to one another in their use of overall fields of ornament that feature curls and/or foliate designs.

While these "patterned" mirrors differ in motif from their *shan* contemporaries, there are significant similarities in their underlying compositional structure. Both types of mirror share an emphasis on discrete units of design, arranged to maximize the sense of order and balance. This general characteristic can be identified as a decisive feature of the early phase and one that stands in marked contrast to the emphasis on dynamism that typifies the imagery found on mirrors recovered from late Warring States sites. While the precedents for the earlier design aesthetic still remain obscure, archaeological evidence would suggest its origins derive from traditions apart from the Chu. The surface ornamentation painted on pottery objects from Baiyue burials at Laiyang, for example, may hint at a possible source;³⁰ their decorative linear patterns were precisely ordered into discrete registers—an ornamental style that differs significantly from the lyrical painted surfaces found on contemporary Chu ceramic and lacquer vessels.

In order to clarify the formal and cultural issues raised by this characterization of an "early phase," it is necessary to examine a corpus of mirrors that have been

27. "Laiyang Chunqiu," pp. 14–15.

28. *Ibid.*, pp. 12, 14.

29. *Hunan chutu tongjing*, pls. 9, 10.

30. Two ceramic *pou* with painted surface ornament were illustrated from Warring States "Baiyue" burials at Laiyang ("Laiyang Chunqiu," p. 10, Fig. 24:1, 2).

dated to the middle Warring States period. While the majority of published mirrors have been excavated in the Changsha area, most come from sites such as Nianjiahu and Guihuayuan, which have not been assigned a periodization within the Warring States epoch. However, two important areas of archaeological activity beyond Changsha have been more fully documented, thus allowing for a more accurate reconstruction of the sequence of development among these mirrors.

Eighty Warring States period burials were excavated in 1978 at the site of Jiushi in the Zixing district of Hunan. The archaeological report, published in 1983, identifies thirty-eight of the burials as belonging to the Baiyue culture, while the remaining were associated with Chu occupants.³¹ The criteria for this classification appear somewhat arbitrary. Objects with counterparts from burials in Changsha are designated as "Chu" tombs, although it is apparent from the report issued one year later for M1 at Shumuling that archaeologists acknowledge a Yue presence in that area. In light of the subsequent publication of the Shumuling and Laiyang burials, the classification used in the Jiushi report appears to warrant revision. For example, M165 contained a *ding* and small (10 cm) trident style mirror³² that closely resemble the examples from the Yue burial at Shumuling and therefore suggest that the tomb's "Chu" designation should be reconsidered. Various problems arise from an attempt to utilize such a dual cultural classification. There are certainly objects from Jiushi that bear a close resemblance to those from either Chu or Yue sites; this does not, however, necessarily imply that the two traditions were mutually exclusive.

In the case of the eleven mirrors from various "Chu" and "Baiyue" tombs at Jiushi, the most apparent distinctions result from their period of manufacture. Those dating from the middle Warring States period are significantly different in style from those examples unearthed at the late burials. Therefore, it appears more satisfactory to speak of chronological phases, whose determinants may have resulted from relative degrees of cultural influence. As most of the burials at Jiushi containing material related to the Yue tradition are relatively early, perhaps this cultural presence was strongest at the time of Daowang's conquest.

The mirror styles are identified from middle Warring States tombs at Jiushi and can be characterized as representative of the early phase of the Hunan tradition. Two examples displaying trident imagery are identified as the first formal category.³³ These mirrors were excavated from adjoining burials; one assumes that they are similar in appearance, as the excavation report documents only one of the pair. The mirror from M165 has a diameter measurement of 10.8 cm and features a quartet of *shan* motifs on a ground of curls and striations; the central boss is surrounded by a square enclosure. As noted above, this mirror, found with a *ding* vessel of the "Yue" style, is closely related to both the example from M1 at Shumuling and, in all probability, the unpublished *shan* mirror cited from M15 at Laiyang.

This early style can also be identified on mirrors from previous excavations at Changsha, such as the example unearthed in 1954 at the site of Yangtianhu (Fig. 72).³⁴ In addition, a middle Warring States date may now be assigned to a number of

31. "Hunan Zixing," p. 120.

32. *Ibid.*, p. 105, Fig. 16: left (*ding*); p. 113, Fig. 20:1 (mirror). The objects were recovered from M165, a burial that was assigned a middle Warring States date and placed in the second "Chu" category (p. 117).

33. *Ibid.*, p. 114.

34. *Hunan chutu tongjing*, pl. 13.

unprovenanced mirrors that also share in this rendition of the trident pattern; examples include mirrors from the Freer Gallery of Art³⁵ and the collection of Kyoto University.³⁶ Perhaps the most notable group of these mirrors were among those gathered in the lower Yangzi river valley by Orvar Karlbeck. They are now dispersed among various Swedish collections.³⁷ As discussed in detail in the preceding chapter, significant stylistic affinities exist between the mirrors collected by Karlbeck in the Yangzi region and those excavated in Hunan since the founding of the People's Republic. However, the inexplicable paucity of archaeological data for mirror production in the southeast has made it impossible to assess the nature of this "Huai/Changsha" relationship. It can be noted that in the course of the late Zhou period both of these regions were exposed to various cultural and political influences, including those of the states of Yue and Chu. The interaction of these two traditions may have provided the stimulus for the florescence of the southern mirror tradition in these regions; regrettably, any comprehensive treatment of this crucial issue must await a considerably fuller archaeological record from the Jiangnan area.

The second style of mirror from Jiushi dating to the early phase is also characterized by an overall surface pattern and a four-part motif. Three examples of this type are cited, all ornamented with the "feather pattern;"³⁸ this term, widely used in the Chinese archaeological literature, is synonymous with the western art historical designation of "Huai." The "feather pattern" and the "cloud pattern" – the latter previously cited on the mirror from M2 at Laiyang – often occur on middle Warring States mirrors as either the primary decorative element or as a ground for other motifs.

The example illustrated from M117 at Jiushi features an overall field of delicate Huai curls, accompanied by characteristic striated embellishments and surface granulation (Fig. 73). Emanating from the circular central boss are four petal or flame-like projections. This style is frequently called simply the "four part" mirror, as its central design divides the surface into quadrants; this compositional feature has been previously discussed as also characteristic of the early phase of the trident mirrors. The "four part" style is one of the most common forms of surface imagery found on mirrors from the Chu region.³⁹ They are well represented among the mirrors recovered at sites in Changsha, where examples of this style display various interpretations of this formal structure.⁴⁰

The final of three early styles found at Jiushi shares basic compositional features with the two preceding categories. The report cites one example of a "four flower" mirror from a middle Warring States "Baiyue" tomb (M208) (Fig. 74).⁴¹ The mirror possesses a quartet of quatrefoils, identified as narcissus flowers, that are situated on

35. Lawton, pp. 86–87, pl. 40.

36. Higuchi, *Kokyō*, I, p. 54, Fig. 25.

37. Bernhard Karlgrén based his classification scheme for "Huai and Han" mirrors on material procured by Karlbeck. Karlgrén placed the "Slanting T's" in his "C" category – the latter designation used for mirrors with the so-called "Huai" pattern on their surface. His writings on the early Chinese mirror contain a number of illustrations of the trident motif; examples include "Huai and Han," pls. 14: C32; pl. 15: C33–36, and "Some Pre-Han Mirrors," *BMFEA* 1963 (35), pl. 3a, c. For references to C category mirrors with animal imagery and "slanting T's," please refer to the previous chapter of this study.

38. "Hunan Zixing," p. 114, Fig. 20:2.

39. Higuchi, pp. 58–60.

40. *Ibid.* Higuchi's comprehensive annotations include a number of examples of this style from Changsha. Selected illustrations of these mirrors are included in *Hunan chutu tongjing*, pls. 6–8, 11, 12.

41. "Hunan Zixing," p. 114, Fig. 20:3.

a "feather"-patterned ground. The four flowers are positioned at equidistant points around the central boss, which is also encircled by four petals. In addition, zig-zag lines issue forth from the mirror's central point and serve to divide the surface into another four-part structure.

Although the three classes of mirrors introduced above are stylistically distinct, they share significant compositional features and design elements. All display a visual interplay between the dense ground patterns and the motifs, the latter being structured to create balanced, four-part divisions of the circular surface. The strong preference for this quadrangular arrangement may suggest that particular significance was attached to this ordering principle. Perhaps the cardinal points or some cosmological reference were evoked by this composition. Considerable caution, however, must govern all observations of this nature; as discussed in the preceding chapter, any attempt to construct an iconography for Warring States mirror imagery is at present a highly speculative endeavor.

While the archaeological evidence does not allow for an interpretation of the meaning of surface imagery, the material introduced above nevertheless offers significant information on both formal and cultural issues. The mirrors recovered at Jiushi present an important group of examples from the early phase of "Chu" mirror production and assist in the reconsideration of stylistic classifications. Emerging from this examination is the recognition of certain aesthetic properties that unite rather than isolate formal categories within a given period. To conclude this discussion of the "early phase," a final group of mirrors from middle Warring States burials in Hunan will be examined in light of the characterizations presented above.

Between 1978 and 1981, extensive archaeological activity was conducted in Yiyang county, located to the northwest of Changsha.⁴² Nearly 150 Warring States burials were identified at various sites in the district and twenty-three mirrors were unearthed.⁴³ While the archaeological report refers to the Yiyang sites as "Chu," objects recovered here – notably weapons – are identified with the Yue tradition, whose cultural presence in the region is noted in the concluding remarks.⁴⁴ The majority of the mirrors came from burials assigned a date in the middle Warring States period. Their surface imagery conforms quite closely to the styles identified at Jiushi, although there is considerable evidence of the coeval use of dominant motifs on the same object; this fact is not, however, recognized in the archaeological report, where these mirrors continued to be grouped into previously established formal categories. As more archaeological information becomes available, it may eventually be possible to abandon all generalized classifications – such as that of the *shan* style – and formulate more workable categories that may lead to insights concerning geographical distinctions and workshop traditions.

The most striking example of the inadequacy of traditional formal designations is encountered when examining the stylistic variation among mirrors displaying trident motifs. Examples from middle Warring States burials at the Yiyang sites of Xinqiaoshan (M3), Heshanmiao (M10) and Heshanzhen (M14) closely resemble

42. Excavations of burials containing mirrors from Warring States sites in Yiyang county have been published in two archaeological reports: "Hunan Yiyang Zhanguo Liang Han mu," *KGXB* 1981 (4): 519–549, and "Yiyang Chu mu," *KGXB* 1985 (1): 89–117.

43. Descriptions of the mirrors from Yiyang appear in "Hunan Yiyang," pp. 528, 534; "Yiyang Chu mu," pp. 106–108.

44. "Yiyang Chu mu," p. 112.

the examples cited above, sharing their four part orientation, Huai ground pattern and squared central enclosure.⁴⁵ However, in all of the Yiyang examples, four additional lines project outward from the corners of the square at center and petals are placed along these quadrant boundaries. Another burial at Heshanzhen (M19) yielded a mirror whose surface imagery features a combination of the trident and "four point" motifs.⁴⁶ In this example, delicately rendered petals issue from the outer circumference of the squared central enclosure, punctuating the interstices between the tripartite configurations. M24 at the same site contained a mirror that displays another variation: its ornamented face possesses four petals around the boss, as well as a quartet of "narcissus" flowers that alternate with the tridents (Fig. 75).⁴⁷ This distinctive example closely relates in style to a mirror excavated in 1955 from M17 at Yanshanling in Changsha.⁴⁸

In general, the examples from Yiyang exhibit more complexity in their surface designs than their counterparts from Jiushi. Whether this results from differences in date or place of manufacture has yet to be determined. However, despite their stylistic intricacies, the mirrors from Yiyang are identifiable as "early phase" examples by virtue of their disposition of imagery and repertory of design elements.

Other mirrors from sites at Yiyang also warrant inclusion in this chronological category. Two examples chosen for illustration in the archaeological report have formal counterparts at Jiushi, while one mirror represents another early style frequently encountered among mirrors from Changsha. A four point mirror with a Huai patterned ground was reported from M12 at the site of Yangniuling;⁴⁹ in addition, a four flower example, virtually identical to the mirror discussed above from M208 at Jiushi was excavated from a burial (M26) at Heshanzhen.⁵⁰ The final mirror from a middle Warring States burial was also recovered at Heshanzhen (M29) (Fig. 76).⁵¹ Upon initial examination, its compositional structure appears to depart from the characteristic arrangement found on middle Warring States mirrors in Hunan. While displaying an overall pattern of relieved curls and striations, the surface of this mirror is dominated by a quartet of bold zig-zag lines that do not emanate from the center but rather run parallel to one another across the circular face.

The typical emphasis upon creating a balanced, four part composition is absent from the M29 mirror. However, this divergent example does appear to closely relate to a large group of mirrors with quadrangular zig-zag designs set on densely patterned surfaces. This latter style, well represented among the Changsha mirrors, was the probable source for the variation that appeared at Yiyang. The design from M29 may have been inspired by mirrors such as the example excavated in 1954 at Nanmenguangchang in Changsha (Fig. 77).⁵² The decorated face of this mirror is organized into two square enclosures; the smaller contains the knobbed boss, while a

45. "Hunan Yiyang," p. 528, Fig. 9 (Xinqiaoshan), p. 534, Fig. 13:1 (Heshanmiao); "Yiyang Chu mu," p. 106, Fig. 23:3 (Heshanzhen).

46. "Yiyang Chu mu," p. 107, Fig. 24:3.

47. *Ibid.*, p. 106, Fig. 23:2.

48. *Hunan chutu tongjing*, pl. 14.

49. "Yiyang Chu mu," p. 106, Fig. 23:4.

50. *Ibid.*, p. 107, Fig. 24:3.

51. *Ibid.*, p. 106, Fig. 23:1.

52. *Hunan chutu tongjing*, pl. 21.

larger square surrounds it. This latter configuration is punctuated at four points with a zig-zag-shaped medallion, whose interior displays a Huai pattern that covers the remaining portions of the surface.

An unprovenanced example, reportedly from Changsha and presently in the Hakutsuru collection in Kobe,⁵³ illustrates a variation on the design from Nan-menguangchang. In this case, the quartet of medallions are larger and have been separated by four arrow-like forms that create an X-shaped configuration around the square at center. The two small enclosures on the surface of the mirror from Heshanzhen may refer to these medallion forms. Designs based on a multiplicity of these zig-zagged *cloison* are suggested by imagery on another excavated example from Changsha. A mirror from M38 at Liaojiawan reveals eight of these enclosures surrounding the central boss.⁵⁴ Here, quatrefoils at the center of the medallions further enhance the symmetry of the overall composition. The crisscrossed lines created by this pattern transect the mirror's surface and recall the linear configurations on the example from Yiyang. An example of this style was also recovered from a middle Warring States burial at Qingchuan in Sichuan Province.⁵⁵ A mirror fragment displaying the same pattern as found on the Liaojiawan and Sichuan examples was also reported from a "Baiyue" tomb of this period at Jiushi.⁵⁶ The archaeological evidence introduced above would therefore argue for including the example from M29 among those representative of the early phase of Chu mirrors; indeed, it stands as an important reminder of the need to create art historical models that allow for the inevitable variations that occur within creative human production.

The corpus of mirrors from these middle Warring States sites represents a significant contribution to the reconstruction of the history of this object in late Zhou China. Aesthetic, cultural and chronological factors have been cited in this attempt to expand upon the earlier formal classifications commonly applied to "Chu mirrors." The final portion of this chapter will continue with this analysis, examining these issues in terms of mirrors excavated in Hunan from sites dated to the late Warring States period.

III. Mirrors of the Later Phase

Chapter Four of this study introduced a mirror from the Changsha site of Fengshushan (Fig. 50) and assigned it a date in the late Warring States era. While the first portion of this chapter has introduced a number of mirrors from Changsha burials, the example from M1 at Fengshushan differs significantly from these objects in its form, construction and decoration. As discussed in detail within the fourth chapter, this "double tier" example from M1 descended from a formal lineage that can be traced back to openwork disks and reflectors of the late Spring and Autumn period in the Zhongyuan. The preceding chapter noted that the example from Fengshushan remains unique among Chu mirrors; however, its appearance in Changsha can be related to broader developments in mirror ornament that occurred in this region during the late Warring States period.

53. Higuchi, p. 52, Fig. 24.

54. *Hunan chutu tongjing*, pl. 20.

55. "Qingchuan xian chutu Qin yengxiu tian lu mudu," *WW* 1982 (1), p. 7, Fig. 55.

56. "Hunan Zixing," p. 113, Fig. 20:6.

While the double tier structure of the M1 mirror presently lacks any archaeological parallel from among the burials in Chu territory, its surface imagery has numerous counterparts among the single plate examples excavated from tombs in Changsha. The Fengshushan mirror displays a pattern of serpentine arabesque that creates the illusion of undulating motion. Examples from Warring States tombs at the sites of Letanbei (M15) and Yueliangshan (M8) (Fig. 78) possess similar surface ornament;⁵⁷ the intertwined bodies of their delicately rendered animal forms appear to be caught in perpetual circular motion. On both of these Changsha mirrors, their dynamism is enhanced by the openwork relief that serves as the central boss. These knobbed projections, which give a three-dimensional quality to the surface imagery, are closely related to the bosses found on several double tier mirrors illustrated in Chapter Four.⁵⁸

The interlace found on these Changsha examples is encountered widely on mirrors from Chu sites dating to the late Warring States period. When considering these objects in light of the stylistic character of mirrors from the middle portion of this era, the contrast is no less than startling. The interplay of ground pattern and motif—a hallmark of the early phase—disappears on these later examples, where the surfaces surrounding the interlace seem to recede as though emphasizing the primacy of the curvilinear design. The compositional aesthetic has also undergone a significant transformation: the division of the surface into balanced quadrants has been replaced by interconnecting parts that create a single, unified whole. Linear elements are far less apparent on the later mirrors, where the curve is given primacy. These fundamental contrasts must be considered in terms of both aesthetic and cultural factors; the analysis to follow will utilize formal and archaeological material in an attempt to examine these conditions as fully as possible.

The mirrors from Letanbei and Yueliangshan, like the double tier reflector from Fengshushan, represent the result of a significant process of stylistic development. Other examples suggest that the transition from the earlier to later phases was more gradual and comprehensible than may be suggested by these three mirrors. An examination of this evolution would necessarily rely heavily on formal analysis; in the case of material excavated from Changsha, this methodology becomes particularly important. As the archaeological literature has yet to offer a periodization for the majority of Warring States sites here, stylistic evidence must also serve as the basis for any chronological reconstruction.

An “intermediary” development—separating the early phase from the later interlace style—perhaps occurred with the introduction of zoomorphic imagery onto the mirror surface. This may not have been the first appearance of animal forms on mirrors in the south; the early trident reflectors collected by Karlbeck featured dogs and doe alternating with the *shan* motif. However, these “Huai” images seem closely related to representations on pictorial bronzes and are highly individualized in their rendering. The animals that appear in quartets on Changsha mirrors are of a significantly different sort: filling the surface with their repetitive, curvilinear forms, these zoomorphs suggest themselves to be pattern rather than portrait. A mirror

57. *Hunan chutu tongjīng*, pl. 38 (Letanbei), pl. 39 (Yueliangshan).

58. Examples of double tier mirrors with bosses created in openwork relief include two examples from the Ōkura collection (Chapter Four, n. 37, 43) and one mirror in the collection of the Harvard University Museums (Chapter Four, n. 38).

from Doulipo (M744) at Changsha is one of a number of examples that illustrate this animal style (Fig. 79).⁵⁹ Its surface is dominated by four dragon-like creatures, whose bodies are fashioned from a series of sweeping, curvilinear forms: C-shaped tails, arching backs, rounded haunches and open jaws. The quadrupeds are arranged in a balanced composition around the mirror's knobbed center. This symmetry recalls the organizational character of the "early phase;" this preceding style is also evoked by the presence of a "feather" pattern on the surface. Two important factors, however, distinguish this mirror from those discussed above. The first involves the interrelationship of the forms: the animals on the Doulipo example are depicted grasping onto one another, thereby creating a single, undulating motif encircling the central boss. In addition, the outer rim of this mirror is ornamented in a lozenge pattern that has been painted rather than cast onto the bronze surface. The addition of pigment is extremely significant, as it serves to suggest a relationship between this medium – which was primarily used to decorate lacquer in the Warring States period – and metalwork. Such interconnections between artistic traditions were an important feature of the Chu aesthetic; therefore, it is not surprising that the probable precedents for the Changsha zoomorphs can be identified on lacquerware associated with the Chu culture.

The curvilinear animal forms found on the mirror from Doulipo may descend from imagery dating to the early Warring States period, such as the zoomorph on the interior of a lacquered stem cup now in the collection of the Freer Gallery of Art.⁶⁰ This beast, with its heart-shaped ear and curling lower jaw, recalls styles associated with the Houma foundries and the so-called Liyu tradition. Influences from the Yellow River region were a possibility, as the Freer example closely compares in its size and shape to lacquer objects recovered well to the north of Changsha; an excavated counterpart, for example, has been identified from the important Chu site of Xinyang Changtaiguan in Henan province.⁶¹ Thomas Lawton regards the Freer image as an early manifestation of the Chu animal style, noting that the "awkward presentation" of the creature "proclaims the earliness of the cup."⁶² Indeed, when compared to the lyrical, attenuated zoomorphs on the Changsha mirror, the Freer example appears closer in style to its Spring and Autumn antecedents.

While lacquerware dating to the Eastern Zhou period has been discovered over a considerable geographical area, the Changsha region still continues to claim the largest number of these objects.⁶³ Examples dated to the Warring States period have been published for a number of decades and serve to document the creative virtuosity of southern lacquermakers.⁶⁴ Regrettably, as sites possessing these objects

59. *Hunan chutu tongjing*, pl. 51.

60. Lawton, pp. 181–182.

61. Lawton draws this comparison, noting that while the Freer stem cup was traditionally thought to have been unearthed at Changsha "during late 1936 or early 1937," its typology distinguishes it as "quite similar to one unearthed at tomb 2 at Ch'ang-t'ai-kuan, Hsin-yang Hsien, Honan Province, which was still within the territory of the state of Ch'u" (p. 182). The Xinyang lacquer was illustrated on the cover of *Wenwu Cankao Ziliao* 7 (1957).

62. Lawton, p. 182.

63. "The richest archaeological finds of early Chinese lacquered vessels now known date from the Eastern Chou period. Published reports have shown that Ch'ang-sha, Hunan Province, within the territory of the ancient state of Ch'u, continues to yield the largest number of lacquered artifacts" (Lawton, p. 178).

64. For a comprehensive discussion of the Changsha lacquer tradition and a full complement of citations to the literature, refer to Li Xueqin's chapter entitled "Lacquered Objects" in *Eastern Zhou and Qin Civilizations*.

have rarely been assigned a date within the Warring States epoch, the periodization of this material is extremely difficult. However, if one compares the dragon-like animal on the Freer stem cup to certain zoomorphic imagery from Changsha, the latter bespeaks an increasing mastery of the painterly medium — a fact that suggests a date in the later portion of the Warring States period.

The rendering of sinuous quadrupeds, preserved on the interior of a lacquered *pan* that was published from a Changsha burial in 1949 (Fig. 80),⁶⁵ illustrates this stylistic maturity and shares certain formal features with the animals on the Douliipo mirror. In their style of execution, these painted zoomorphs possess a fluidity of line and curvilinear emphasis that can be compared to the mirror ornament; in addition, both examples display an elongation of the creatures' tails, creating tendril-like projections that attach themselves to other compositional elements. Certain lacquered objects were also embellished with carved relief; the intertwined dragons on a rectangular container from a Changsha burial attest to this practice and also relate in style to the imagery on the M744 mirror.⁶⁶ In both cases, the expressive animals are shown with their front and back legs extended and their mouths opened widely. On the lacquered vessel, the dragons' curving bodies and long tails weave through one another to create a lattice-like effect. It is possible to also identify this more explicit attempt at interlaced ornament on the surfaces of certain Changsha mirrors.

The site of Fengshushan, where the double tier reflector discussed above was unearthed, also contained a burial (M42) with an animal quartet related to the Douliipo imagery (Fig. 81); four similarly fashioned creatures with prominent tails in the form of recumbent C-curves fill the surface.⁶⁷ However, the addition on the M42 mirror of a curvilinear foliate element, formed in part from the animals' tails, alters the strictly zoomorphic character of the imagery. The interplay of designs suggests a decreased concern with the actual animal referent; the emphasis here is upon the interconnections of the undulating forms rather than a representational motif. While there have been a number of mirrors with this style of imagery reported,⁶⁸ the example from Fengshushan is particularly significant. Its discovery at the site of the double plate example suggests that animal tracery in relief, first appearing on mirrors associated with the Liyu tradition, may have also stimulated an interest in experimenting with interlaced zoomorphic imagery on mirrors in the south.

If one compares the animals found on both the Douliipo and Fengshushan (M42) mirrors with the interlace designs that were previously discussed on examples from the Changsha sites of Letanbei and Yueliangshan, the possible impact of the two-tier relief style becomes more readily apparent. While the Fengshushan zoomorphs are juxtaposed with abstracted ornamental motifs, their formal articulation remains closely akin in style to the four quadrupeds on the Douliipo example. In both cases, the imagery is defined by the use of a thin, raised outline that renders a painterly effect, suggesting the influence of contemporary lacquer ornament. In

65. Qiang Yuanyi, *Changsha* (n.p.: Jingu chubanshe, 1949), p. 15.

66. Shang Chengzuo, *Changsha chutu Chu qiqi tulu* (Shanghai: Shanghai chubanshe, 1955), pl. 16.

67. *Hunan chutu tongjing*, pl. 27.

68. Other examples of this increasing ornamentalization of the animal form are illustrated in *Hunan chutu tongjing*, pls. 26, 28, 29, and Higuchi, p. 57, Fig. 27: bottom (detail from a mirror in the National Museum in Tokyo).

contrast, the arabesque patterns on the Letanbei and Yueliangshan examples reveal a de-emphasis on outline; in these examples, the overall image is more boldly explicated and set off from the surface. While the animals from Doulipo are securely situated upon their ground, the zoomorphic interlace has the appearance of a grille that has been affixed to the face of the reflector. The presence of the openwork bosses on these latter examples, a distinctive feature previously cited on double plate mirrors, also suggests the possible influence of this relief style.

The chronological issues raised by these two forms of animal imagery are complex, particularly in light of the paucity of excavated examples of the "animal quartet" style from sites beyond Changsha; this motif has yet to be found on a mirror recovered from a dated Warring States burial. Therefore, one can only offer speculation based on the formal evidence. As the interlace style often contains zoomorphic references — a dragon head with curving, open jaws or clawed, outstretched legs — it is plausible that these forms were derived from earlier and more explicit animal depictions. The ornamentalizing of the zoomorphs on the Fengshushan mirror from M42, a feature found on a number of Changsha examples, also indicates that animal forms were receptive to a transformation from individual image to overall pattern. Therefore, this study will cautiously propose that the four-part animal compositions were the first of the two "later phase" styles; as suggested earlier in the chapter, these zoomorphic quartets may have presaged the intricate serpentine patterns that characterize Chu mirrors from late Warring States sites.

Burials at Jiushi and Yiyang have both yielded mirrors with surface interlace and offer evidence of the diversity that occurred within this style. These objects, recovered from late burials, can also assist in the periodization of comparable examples from sites in Changsha; it deserves note, however, that at present considerably fewer mirrors have been recovered from late Warring States burials than from tombs dated to the middle portion of the period. From the evidence that is currently available, it is nevertheless possible to identify varying renditions of animal tracery, as well as other forms of interconnected surface ornament.

M186 at Jiushi contained a mirror whose surface imagery can be compared to that of the double tier mirror from Fengshushan and the previously cited interlace examples from Changsha (Fig. 82).⁶⁹ All share a rhythmic, overall pattern of recumbent curls and tendrils, punctuated by an occasional zoomorphic referent. In the Jiushi mirror, dragon heads in profile can be discerned, as well as vestigial limbs that appear to issue from the intertwined coils; both of these organic elements recall the serpentine creatures that appear on the "animal quartet" mirrors.

Another burial dated to the late Warring States period (M432) contained a second mirror displaying interlaced ornament;⁷⁰ in this case, the curvilinear pattern is interrupted at three points by the inclusion of a zig-zagged diamond motif. Developing out of the dominant circular pattern, this element suggests comparison with the zig-zags encountered on the earlier mirrors. Several examples from Changsha also evidence the use of this linear motif. Mirrors from M864 at Rongyuan⁷¹ and M31 at Langpenling,⁷² for example, both possess distinctive rhomboidal

69. "Hunan Zixing," p. 113, Fig. 20:4.

70. *Ibid.*, p. 113, Fig. 20:6.

71. *Hunan chutu tongjing*, pl. 36.

72. *Ibid.*, pl. 37.

elements along with an overall surface of zoomorphic tracery; their stylistic affinity to the example from M432 at Jiushi would suggest a late Warring States date for these Changsha mirrors.

While the interlace designs that characterize double tier mirrors have been proposed as a source for this style, broader aesthetic and cultural factors also contributed to the interest in this approach to composition. Chu lacquerwork and textiles often featured fields of delicate interlace and tendrils, creating richly detailed surface ornament; the curl and diamond combination, for example, can be identified on objects dating from both the Warring States and the Western Han periods.⁷³ Therefore, the Chu aesthetic preference for the use of similar design elements in various media must also be cited as a significant factor in the stylistic character of "later phase" mirror ornament.

Versions of the two interlace styles found on the Jiushi mirrors can also be identified on examples from sites in Yiyang county. A late Warring States burial (M14) at Heshanmiao contained a mirror (Fig. 83) with an intertwined pattern of serpents and birds.⁷⁴ The dragon-like creatures on this example recall similar animal forms on mirrors cited above. The inclusion of birds with sweeping, upturned wings distinguishes this example from the previous zoomorphic mirrors. It does, however, have a counterpart from Changsha; a nearly identical example was excavated in 1954 from M8 at Dongguashan.⁷⁵ A second mirror with interlace was also published from among the Yiyang finds.⁷⁶ The fragmentary remains of an example from M8 at Taohualun displays a diamond and animal pattern that closely resembles the surface ornament found on the previously cited mirror from Jiushi.

The above characterization of the later phase of mirror production has emphasized the role of zoomorphic imagery and the interlace patterns derived from these forms. The so-called "animal quartet" motif has been proposed as a transitional style that arose in response to both the relief imagery current on double tier mirrors, as well as the growing interest in zoomorphic interlace on Warring States lacquerware and textiles associated with the Kingdom of Chu. However, archaeological evidence indicates that the aesthetic preference for interconnected ornament, which informed much late Warring States design in the south, extended beyond the use of zoomorphic tracery. Examples can be identified where geometric forms were used to create the surface dynamism that typifies this phase; in addition, as cited above, a mirror from Changde suggests that the trident — a motif popular in the preceding era — reappeared in a formal guise that reflected the artistic sensibilities of this later period.

"Mirrors with interconnected-arc designs"⁷⁷ is a category of Chu mirror that features a dominant surface motif resembling a star; this image is created by a series of adjoining bow-shaped elements that surround the central boss. While this pattern

73. For a discussion of the coeval appearance of this pattern on Warring States period objects, including textiles, lacquerware and mirrors, refer to *Wenwu kaogu gongzuo sanshinian*, p. 313. Examples of the interlace and diamond motif can also be identified at Changsha sites of the Western Han period; the lavish burial known as M1 at Mawangdui contained both lacquers and textiles decorated in this pattern (*Changsha Mawangdui yihao Han mu fajue jianbao* (Beijing: Wenwu chubanshe, 1972), Figs. 40, 83).

74. "Hunan Yiyang Zhanguo", p. 534, Fig. 13:2.

75. *Hunan chutu tongjing*, pl. 40.

76. "Yiyang Chu mu," p. 107, Fig. 24:1.

77. Li, *Eastern Zhou*, p. 302.

is distinguishable from the animal interlace styles, it shares their interest in creating an overall rhythmic surface. In some cases, "arc" patterns appear on mirrors along-side intertwined zoomorphs. An excavated example from Taohualun illustrates this combination (Fig. 84).⁷⁸ In this case, the points created at the juncture of the arcs extend to the outer rim; coiled animal forms fill the spaces surrounding the star-like image and enliven the surface with a sense of restless movement. Excavated from a late Warring States burial (M1) at Taohualun, it is comparable to a number of objects from Changsha sites. A mirror from M2 at Chenjiadashan, for example,⁷⁹ is closely related in style to the Yiyang object – a fact that would strongly argue for placing the Changsha mirror in the final portion of the Warring States period.

It is impossible to attribute any iconographic significance to the "arc" or "star" configuration, although reference to lunar reflection and ritual activities – issues raised in the preceding chapter – cannot be discounted. Whether the motivation was aesthetic or symbolic, star-shaped imagery appeared to enjoy a degree of popularity in the late Warring States period; this fact is evidenced by the suggestion of this motif within a second type of geometric configuration. This latter style is particularly significant in regard to the decorative elements used to create this stellar image. Trident forms are the primary constituent of this pattern, thereby illustrating the reconfiguration of a motif that was widely used in the middle Warring States period. An example from M15 at Yueliangshan, for example, displays five sharply tilted tridents, connected to one another by thin, projecting bars.⁸⁰ This compositional arrangement makes it possible to read the surface imagery in two ways: one interpretation focuses on the forms as an interconnected pattern of T-shaped elements, while the other visualizes a five-point star created by the juncture of the butt ends of the *shan* motifs. Li Xueqin illustrates an example in which a similar illusionary effect is achieved by the use of six tridents, each connected by two zig-zagged lines (Fig. 85).⁸¹ A differing rendition of the trident pattern has already been cited from a late Warring States burial at the Hunan site of Changde. While the five tridents on the mirror from M7 do not touch, their elongated, tilted forms create a circular motion that departs from the symmetrical, four-part compositions that characterize the earlier appearance of this motif.

The material introduced in this portion of the chapter has focused upon the formal development of decorated mirrors from sites dating to the late Warring States period. While animal tracery is an exemplar of this tradition, it has been necessary to identify a broader set of aesthetic and cultural constituents. On the evidence offered above, it can be argued that the concept of "interconnection" – rather than its manifestation as zoomorphic interlace – serves as the fundamental determinant of "later phase" ornament. A significant variety of mirror decoration – zoomorphic and geometric, innovative and traditional – can be associated with this period; what distinguishes it from the imagery of the middle Warring States era is its emphasis on unity and dynamism.

While the presence of the Baiyue was widely cited in the archaeological literature at burials containing mirrors of the "early phase," references to this group

78. "Yiyang Chu mu," p. 107, Fig. 24.

79. *Hunan chutu tongjing*, pl. 42.

80. *Ibid.*, pl. 17.

81. Li, *Eastern Zhou*, p. 304, Fig. 131.

decline significantly in reports on late Warring States sites. Mirrors from these latter tombs are consistently associated with the Chu; indeed, the surfaces of these examples display close formal affinities to the ornamental styles encountered within this cultural tradition. Although excavated evidence has yet to correlate mirror use with the Chu ruling elite, the later phase styles suggest an increasing alignment with this culture. Therefore, while it remains impossible to identify which groups made or used mirrors in Chu territories in the late Warring States period, it is possible to identify the strong presence of Chu-inspired imagery on these bronze reflectors.

The material presented in this chapter derives from one of the most important assemblages of early Chinese mirrors known to date. The scientifically excavated mirrors from the Changsha area and beyond – in contrast to the unprovenanced material from the Huai region – enable consideration of both the artistic and cultural conditions that surrounded the creation of mirrors in the Chu realm. What remains extremely deficient within this analysis, however, is an examination of the functional and iconographic issues. On these matters, the archaeological record has remained steadfastly silent. Therefore, observations concerning the reception and use of mirrors by those living in Chu territory must be relegated to the same level of cautious speculation as encountered in preceding chapters of this study.

As discussed in the first portion of this chapter, the literature to date contains more information about the status of individuals who were not buried with mirrors than those who were. Ethnic and class distinctions, noted above, may have dictated certain aspects of this object's usage. The vast majority of examples from Hunan come from modest graves in the Warring States period; the contrast between the contents of Changsha burials with mirrors in the Zhou and Han periods reveals a significant increase in furnishings in the post-Qin era.⁸² There is also evidence that in the middle Warring States period, the Baiyue people were interred more frequently with mirrors than their Chu conquerors; however, this situation also appears to change by the final century of Zhou rule. Cemeteries associated with soldiers, such as at Heshanmiao in Yiyang county,⁸³ have yielded considerably more mirrors than the tombs of Chu nobles. However, none of these facts can adequately explain the reason for the appearance of hundreds – if not thousands – of mirrors in Chu territory in the course of the second half of the Warring States epoch.

The archaeological record does suggest that the decorated mirror came into currency in Chu territory after its appearance in areas to the north and, perhaps, the east; it is indeed possible that groups such as the Yue brought mirrors here from the lower Yangzi valley. It is important to clarify, however, that excavated evidence only suggests that the mirror in its commonly recognized form – a flat, knobbed disk with a decorated surface on the reverse of its reflective face – made its initial appearance in these Chu territories during the middle of the Warring States epoch: it is impossible to ascertain if the function(s) served by this object were also innovative. It is highly probable that some form of bronze solar reflector – whether utilized to create fires, as ceremonial paraphernalia or cosmetic accouterment – was present in this region prior to the advent of the decorated mirror. While the excavations at Jiangling Yutaishan in Hupei have yet to yield a “Chu style” mirror, nine small

82. *Hunan chutu tongjīng*, pp. 20–22.

83. “Hunan Yiyang Zhanguo,” p. 548.

circular disks, some with looped centers, were found here.⁸⁴ These objects were described as “plain” mirrors, although their form closely relates to other bronzes identified as either lids or horse fittings. The burials containing these “mirrors” have been dated from the Spring and Autumn to the late Warring States period, indicating that this object’s usage both antedated and coincided with that of ornamented mirrors in Changsha.⁸⁵ This evidence suggests that a circular bronze disk may have existed within the Chu culture for a considerable period of time; perhaps the flat, decorated mirror commonly associated with this state ultimately fulfilled certain functions that had previously been performed by these more modest objects.

If a context for reflective objects existed in the kingdom of Chu, then the mirror’s rapid stylistic development and assimilation become more explicable. The southern urban center of Changsha appears to have been an important site for both the manufacture and interment of these objects. Culturally diverse and artistically active, this city must have provided an environment conducive to the reception and dissemination of the decorated mirror.

While its origins remain obscure, the Chu mirror tradition does possess a legacy that can be readily identified. There is considerable evidence for the continuation of certain Chu mirror styles — particularly zoomorphic interlace — into the early imperial period. The Qin burials at Shuihudi in Yunmeng county, Hubei Province, have yielded mirrors with interlace patterns (Fig. 86)⁸⁶ that “obviously continue the tradition of Chu mirrors.”⁸⁷ *Hunan chutu tongjing tulu* documents a number of Western Han mirrors whose surface imagery recalls the serpentine arabesque of their Zhou ancestors;⁸⁸ such an object was recovered from among the opulent furnishings buried with the Countess of Dai at Mawangdui (Fig. 87).⁸⁹ Her mirror, displaying a tracery of sinuous dragons, attests to the continuity of the Chu aesthetic in Changsha; the presence of such an object in an elite burial also suggests that decorated mirrors had become a constituent of the tomb furnishings of the ruling class by the second century B.C.

The stylistic contribution of Chu ornament to successive Qin and Han imagery is easily identified. Less apparent, however, is a possible debt to certain philosophical attitudes that may have been formulated during the period of Chu power. *Xijing Zaji* records the story of a large mirror that was suspended within the Qin palace; it was said to reflect the internal organs of the beholder.⁹⁰ The concept of reflection that is illustrated by the legend is of considerable importance. This object serves as a visual metaphor for the revelation of the inner self — a usage that suggests that the mirror was invested with powers that extend beyond daily life functions. It is possible, therefore, that certain metaphysical attributes associated with the earliest mirrors were bequeathed — along with surface patterns of animal interlace — to the successive dynastic traditions. The present study has restricted its scope to an investigation of the bronze reflector as an object; with this foundation, it may be possible to pursue an examination of the ancient mirror as an idea.

84. *Jiangling Yutaishan Chu mu* (Beijing: Wenwu chubanshe, 1984), p. 88.

85. For the periodization of the Yutaishan burials refer to *Jiangling Yutaishan*, pp. 150–151.

86. *Yunmeng Shuihudi Qin mu* (Beijing: Wenwu chubanshe, 1981), pl. 30.

87. Li, *Eastern Zhou*, p. 313.

88. *Hunan chutu tongjing*, pls. 46–48.

89. *Changsha Mawangdui*, p. 128, Fig. 111.

90. Li cites this legend in his discussion of Qin mirrors (*Eastern Zhou*, p. 312).

Epilogue

The Challenge of Constraints: A Perspective on Early Mirror Design

As this study has documented, many of the motifs cast on early Chinese mirrors were part of a visual vocabulary shared among various categories of contemporary objects. However, the articulation of this imagery involved issues of design that were specific to the reflector's distinctive shape. Preceding chapters have analyzed mirror decoration in terms of subject matter and the evolution of various styles; what has not been comprehensively examined is the actual relationship between the image and its surface. Decisions involving the formal structure of the decoration also deserve scholarly consideration. The typology of the mirror, with its central boss and circular or square face, had a profound effect upon the design of the imagery. The potential limitations of these relatively small, knobbed disks did not, however, prove to be an aesthetic liability; the intricate patterns that commonly adorned the early mirrors attest to the masterful exploitation of these formal prescriptions. Indeed, it is in this ability to meet the "challenge of constraints" — a term used by E. H. Gombrich in his analysis of the concept of ornament¹ — that the Bronze Age mirror must be accorded additional significance within the art history of early China.

When the Chinese foundries began to cast bronze mirrors, issues relating to the design of decorated circular objects had, to a certain degree, already been addressed. The corpus of pottery casting molds from Houma contained the earliest known evidence for the manufacture of mirrors in China; it also revealed that two other types of circular object — lids and fittings — were in production at this site.² Round lids had been in use on bronze vessels for a considerable period of time; in fact, when the first Shang mirror was discovered at Xibeigang in Anyang, it was initially designated as a vessel cover.³ In the Spring and Autumn period, *ding* were the most common object possessing a circular lid.⁴ Regarded as a component of a larger entity, lids were ornamented with imagery that was closely coordinated with the surface patterns found on the parent vessel.

The mold for an object described as a bridle fitting also attests to the creation of decorated circular bronzes at the Jin foundry.⁵ These openwork disks have been discussed in detail in the course of the preceding study. Like the mirror itself, this object appears to have originated among horse-borne peoples of China's northern

1. E.H. Gombrich, *The Sense of Order: A Study in the Psychology of Decorative Art* (Ithaca, N.Y.: Cornell University Press, 1979, 1984), p. [63].

2. "Houma Dong Zhou," *KG* 1962 (2): 58–59.

3. Gao, "Yindai de yimian tongjing," p. 710.

4. Higuchi, *Kokyo*, p. 32.

5. "Houma Dong Zhou," pl. 4:1.

frontiers; archaeological evidence suggests that fittings of this type enjoyed a brief period of currency in the Zhongyuan during late Spring and Autumn and early Warring States periods. As documented in Chapter Four, this bridle ornament eventually merged with the mirror to create the important "double tier" reflector. The appearance of a casting mold for this fitting at Houma is highly significant, as it indicates that Chinese foundries were casting this form of circular object during the earliest period of mirror production.

Although the quality of the photographic reproductions of the Houma molds is regrettably poor, it is nevertheless possible to associate the imagery on each category of circular object with a distinctive ordering principle. Drawing on Gombrich's design characterizations, one can articulate the various options that were utilized in organizing imagery onto the round surfaces. The formal arrangement chosen for the lid mold, for example, can be associated with the concept of "filling."⁶ The circular face is treated as an overall decorative field, with a dense pattern of curvilinear lines quite literally enveloping the surface.⁷ There is no outer border; the pattern is given no enclosed definition. These choices appear extremely compatible with the use accorded this object. Created to fit on a bronze vessel, the lid was designed to be visually integrated into a larger environment. Therefore, the design need not delimit the surface imagery; the identity of this form was not self-contained, but indivisible from the object it was intended to serve.

If the lid imagery suggests the principle of filling, the forms on the mirror mold represent the concept of "framing."⁸ As described within the preceding study, the illustrated example from Houma (Fig. 24) displays a series of concentric circles of imagery; an outer border executed in the cowrie shell pattern encloses two larger registers with animal forms. The sources for this imagery have been examined in Chapter Three; the concern of the present analysis involves distinguishing the manner in which these forms have been ordered on the surface. In this case, the patterns have been organized into circular registers that effectively isolate each band of distinctive imagery. The ornamentation on the mirror mold is not perceived as an overall decorative field but rather as a series of discrete, radiating rings.

This design preference may be indebted to mirrors bearing zoomorphic motifs that originated in regions to the north of the Central Plains. The mirror introduced in Chapter Three from the Jin cemetery site at Fenshuiling (M53) provides an example of a "framed" design that may have served as a precedent for the Houma casters.⁹ The Fenshuiling example (Fig. 26), displaying two concentric rings of zoomorphs, reveals an attention to detail and a conscious delineation by "species;" these features may have resulted from the iconographic significance that was invested in these animal depictions within their original cultural context. The mirror from M53 has been discussed in terms of the Liyu style, which was inspired by traditions that flourished along the borders of the Zhou state; in both its imagery and the organizational structure of its design, it is likely that the mirror was beholden to

6. Gombrich, p. 75.

7. This object is produced in KG 1962 (2), pl. 4:3. Due to the poor quality of the photographic reproduction, copies made from that image are extremely difficult to read. Therefore, the illustration of this mold has not been included in this study.

8. Gombrich, p. 75.

9. "Shanxi Changzhi Fenshuiling," KG 1964 (3): p. 134, fig. 27, pl. 5:7.

northern influence. The discovery of a counterpart (Fig. 23) to the Fenshuiling reflector at a site in the Ningxia region offers additional evidence of this possibility.

If the terms “filling” and “framing” can be applied to the arrangement of surface forms on the lid and mirror molds respectively, a third descriptive phrase in the vocabulary of ornamental design – “linking” – is the appropriate designation for the final category of imagery found on the circular objects at Houma.¹⁰ The mold for an openwork bridle fitting (Fig. 25) features four serpentine creatures; their sinuous bodies form an intertwined, repetitive tracery that fills the interior of the disk. While the concentric registers of the mirror mold serve to clarify the distinctive bands of imagery, the undulating zoomorphs that ornament the fitting create a significantly different visual effect. Encased within an outer border, the interlaced animal quartet unifies the surface while retaining a balanced, four-point composition. The use of an overall pattern provides a cohesiveness and “readability” to the surface that is not present within the radiating design of the mirror. While this “linked” imagery dominates the surface of the object, its arrangement serves to express more than a “filled” area; the decidedly circular motion of the serpents reinforces the distinctive typology of the object, along with projecting a self-contained and autonomous decorative field.

Archaeological evidence suggests that the preference for concentric ornamental bands on early mirrors was relatively short-lived. It appears that the influence of northern styles – in both subject matter and design – declined with the rise of indigenous production. Objects from sites of the early to middle Warring States period suggest important developments in the choice of surface ornament. Overall fields of relieved curls, closely related to the imagery cast on contemporary vessels and their lids, began to appear on the surface of mirrors. The present study has documented and illustrated a number of these examples, which include objects unearthed in Hebei, Shanxi and Henan provinces. This development would indicate that mirror design was now drawing upon a native precedent; this appropriation also suggests that while mirrors and lids were significantly different objects, their surface imagery was perceived of as specific to form rather than function. As mirror production increased, particularly in regions below the Yellow River, there is evidence that this uniformity within circular ornament lessened. Decorative styles were adopted that became more exclusively associated with the late Zhou reflector. The trident motif, discussed in Chapters Five and Six, can be readily identified as an example of distinctive “mirror imagery.”

As the mirror established its identity and interest in developing innovative decoration burgeoned, the constraints inherent to the ornamentalizing of its surface were – at least initially – cautiously respected. The mirrors detailed in Chapter Six as exemplars of the “early phase” in Hunan production display a markedly conservative approach to surface design. Discrete units of ornament, positioned at equidistant points on the mirror surface, were ordered into simple, repetitive sequences. The emphasis on creating a static, stable composition was discussed in the text as a primary aesthetic determinant of this early style. The integrity of individual components was privileged over the creation of a unified composition. This preference may have arisen in part from specific cultural issues that were detailed within the preceding chapter.

10. Gombrich, pp. 75, 79.

From the perspective of mirror design, such formal priorities may also be associated with the initial use of new decorative elements. Trident and floral motifs began to appear on a ground of curls and striations. This latter imagery was a continuation of the overall patterns that had "filled" mirror surfaces in the preceding century. In order to distinguish the new elements from the older pattern, the mirror designer may have consciously chosen to position each unit of ornament within its own distinct space on the surface. An interest in accentuating the round form of the mirror is conspicuously absent among these "early phase" examples from Hunan province; in fact, the common four-part organization of the decorative elements often suggests the coordinates of a linear configuration rather than a circular one.

Mirror imagery underwent a dramatic transformation in the latter half of the Warring States period. The introduction of "linked" ornament had a profound effect on the subsequent development of mirror design. Chapter Six has credited two important sources for the appearance of interlace patterns on bronze mirrors. The initial impetus may have resulted from the creation of objects that fused the circular fitting, such as the example discussed above from Houma, onto the mirror's non-reflective face. These "double tier" mirrors offered the opportunity to engender the surface with both dimensionality and movement. The curvilinear emphasis of these dynamic patterns strengthened the visual relationship between image and physical object. Although the double tier style appears to have flourished for only a brief period of time, its impact was certainly enhanced by the general interest in interlace ornament that was prevalent throughout late Zhou China. As noted above, archaeological evidence indicates that regions associated with the state of Chu were particularly predisposed to the use of tracery patterns; lacquerware, textiles and bronze objects from Chu sites all attest to the widespread use of this decorative convention.

Interlace was particularly well suited to the ornamentation of mirrors, as it offered the opportunity to integrate the surface into a single decorative field; it also allowed for the coeval existence of balance and movement within the composition. First introduced as an innovative style, the concept of linked imagery was subsequently applied to existing types of mirror decor. Therefore, it is not only the patterns of zoomorphic tracery that appear on late Warring States mirrors, but interlaced renditions of tridents and floral motifs as well. In the subsequent history of the Chinese mirror, the subject matter of the Bronze Age designs would be replaced by later decorative conventions. The use of interconnected imagery, however, was never superseded. Long after the sinuous animals that enlivened the late Zhou examples disappeared, Chinese mirrors would continue to display the use of delicately intertwined imagery. Throughout dynastic history, these decorated surfaces would perpetuate the aesthetic legacy of those who cast – and designed – the earliest bronze reflectors.

Abbreviations

AA	<i>Artibus Asiae</i>	
BMFEA	<i>Bulletin of the Museum of Far Eastern Antiquities</i>	
KG	<i>Kaogu Tongxun,</i>	考古通訊
	<i>Kaogu</i>	考古
KGXB	<i>Kaogu Xuebao</i>	考古學報
KGYYW	<i>Kaogu Yu Wenwu</i>	考古與文物
WW	<i>Wenwu Cankao Ziliao,</i>	文物參考資料
	<i>Wenwu</i>	文物

Glossary of Chinese Characters

An Zhimin	安志敏	Fengxiang	風翔
Anyang	安陽	Fenshuiling	分水嶺
Baifu	白浮	Fu Hao	婦好
Baijiacun	白家村	Gaocheng	藁城
Baiyue	百越	Gaoluo	皋落
Baode xian	保德縣	Gongsuhao	公蘇耗
Baotou	包頭	Guanghe xian	廣河縣
Benxi xian	本溪縣	Guihuayuan	桂花園
Bogutu	博古圖	Guinan xian	貴南縣
Cai	蔡	Gujing mingji	古鏡銘集
Cai Yunzhang	蔡運章	Gujing tulu	古鏡圖錄
Changde	常德	Guo	虢
Changping	昌平	Guweicun	固圍村
Changsha	長沙	Han (dynasty)	漢
Changtaiguan	長台關	Han (state)	韓
Changzhi	長治	Handan	邯鄲
Changzi	長子	he	盂
Chaoyang	朝陽	Heshanmiao	赫山廟
Chenjiadashan	陳家大山	Heshanzhen	赫山鎮
Chengqiao	程橋	Houma	侯馬
Chu	楚	hu	壺
Chunhua xian	淳化縣	Huai	淮
danglu	當盧	Huanhua baishixuan jilu	浣花拜石軒集錄
Daowang	悼王	Hui xian	輝縣
Di	狄	Hunan chutu tongjing tulu	湖南出土銅鏡圖錄
ding	鼎	Hunyuan xian	渾源縣
Dongguashan	冬瓜山	Huqiu	虎丘
Doulipo	斗笠坡	Ji	荊
Du Yu	杜預	jian	鑑
Fangshan	房山		
Fengshushan	楓樹山		

Jiangling	江陵	Ningcheng xian	寧城縣
Jin	晉	Niujiapo	牛家坡
Jincun	金村	pan	盤
Jinghua	鏡話	Pinggu xian	平谷縣
Jiushi	舊市	Pingshan	平山
jue	爵	Qian Dian	錢站
Kezuo	喀左	Qianlong	乾隆
Kong Xiangxing	孔祥星	Qiangfang	羌方
Laiyang	萊陽	Qijia	齊家
Letanbei	了彈庫	Qin	秦
Li Xueqin	李學勤	Qing	清
Liang Shangchun	梁上椿	Qingchuan	青川
Liang Tingnan	梁廷楠	Quan rong	畎戎
Liaojiawan	廖家灣	Rongyuan	容園
Lijiacun	李家村	San Jin	三晉
Lin Yun	林云	sandai	三代
Lingshi	靈石	shan	山
Liu Yiman	劉一曼	Shan xian	陝縣
Liuhe	六合	Shanbiaozhen	山彪鎮
Liulihe	琉璃河	Shang	商
Liulige	琉璃閣	Shangcunling	上村嶺
Liyu	李峪	Shaoxing xian	紹興縣
Luo Zhenyu	羅振玉	Shenmu xian	神木縣
Luoyang	洛陽	Shenyang	瀋陽
Mawangdui	馬王堆	Shiertaiyingzi	十二台營子
mingqi	明器	Shou xian	壽縣
Naimatai	廐馬台	Shouchun	壽春
Nanmengguangchang	南門廣場	Shouzhou	壽州
Nanshangen	南山根	Shumuling	樹木嶺
Nianjiahu	年佳湖	Song	宋
Nidingcun	倪丁村	Suixian	隨縣
		Suide xian	綏德縣

Suzhou	蘇州	Yijinhuoluo	伊金霍洛
Taixicun	台西村	Yinpenling	銀盆嶺
Tang	唐	Yinxu	殷虛
Taohualun	桃花崙	Yiyang	益陽
Tenghuating	藤花亭	yu	孟
Tongxianbo	銅仙博	Yue	越
Wang Fu	王駝	Yueliangshan	月亮山
Wei	魏	Yutaishan	兩台山
Wu	吳	Zeng Hou Yi	曾侯乙
Xiajiadian	夏家店	Zhao	趙
Xiaotun	小屯	Zhengjiawazi	鄭家窪子
Xibeigang	西北岡	Zhengzhou	鄭州
Xinqiaoshan	新橋山	Zhongning	中寧
Xinyang	信陽	Zhongshan	中山
Xiqing gujian	西清古鑑	<i>Zhongguo gudai tongjing</i>	中國古代銅鏡
Xijing Zaji	西京雜記		
Xintian	新田	Zhongyuan	中原
Xinzheng	新鄭	Zhongzhoulu	中州路
Xiongnu	匈奴	Zhou	周
Xu Naichang	徐乃昌	Zhouli	周禮
Xu Yuanrun	徐元潤	Zixing xian	資興縣
Xuanhe bogu tulu	宣和博古圖錄	zunpan	樽盤
Xuanhua	宣化	Zuo Zhuan	左傳
Xueshan	雪山		
Yan	燕		
Yangniuling	羊牛嶺		
Yangshao	仰韶		
yangsui	陽燧		
Yanku cangjing	岩窟藏鏡		
Yanshanling	燕山嶺		
Yantoucun	塢頭村		
yi	邑		

Japanese Names and Titles Appearing in the Text

<i>Chūgoku kokyō no kenkyū</i>	中国古鏡の研究
Hakutsuru	白鶴
Higuchi Takayasu	樋口隆康
<i>Kankyō no kenkyū</i>	鑑鏡の研究
<i>Kanizen no kokyō no kenkyū</i>	漢以前の古鏡の研究
Komai Kazuchika	駒井和愛
<i>Kokyō no kenkyū</i>	古鏡の研究
Kurokawa	黒川
Moriya	森谷
Ōkura	大倉
Tomioaka Kenzō	富岡謙蔵
Umehara Sueji	梅原末治

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Illustrations



*Fig. 1. Mirror from M25 at Guinan Naimatai, Qinghai province.
D: 9 cm. After Wenwu kaogu gongzuo, pl. 14:4.*



*Fig. 2. Drawing of mirror from M25 at Guinan Naimatai. After
Chang (1986), p. 285, fig. 250.*



Fig. 3. Drawing of a copper disk (enlarged) from a burial site at Berezhnovka, Stalin-grad district, U.S.S.R. After Gimbutas, p. 558, fig. 380:10.

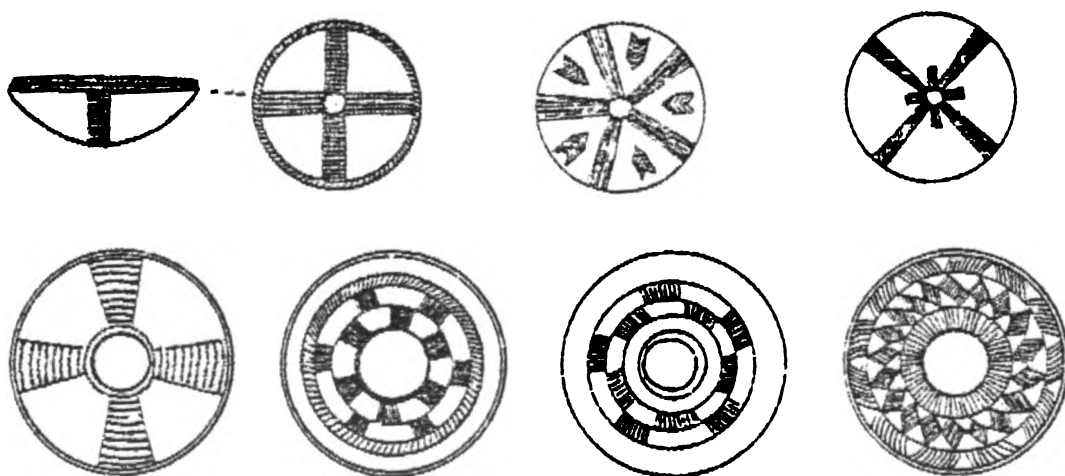


Fig. 4. Drawings of patterns found on ceramic vessels from early Bronze Age burials at Balanovo, Kazan district, U.S.S.R. After Gimbutas, p. 589, fig. 409:b, c.

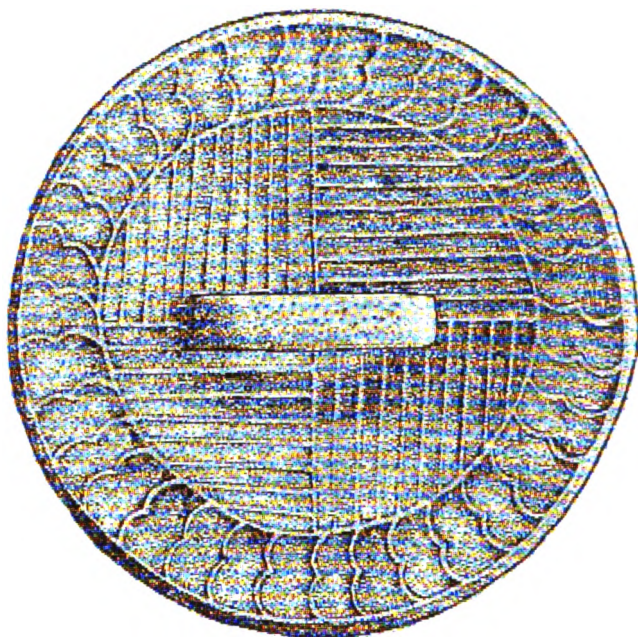


Fig. 5. Drawing of a mirror from M1005 at Anyang, Henan province. D: 6.7 cm. After Umehara (1968), p. 12, fig. 1.

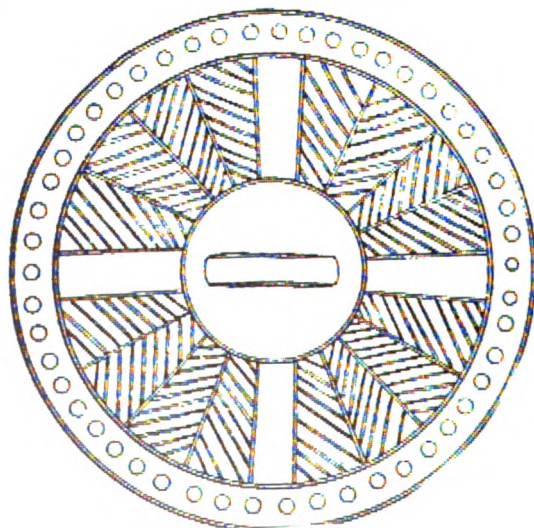
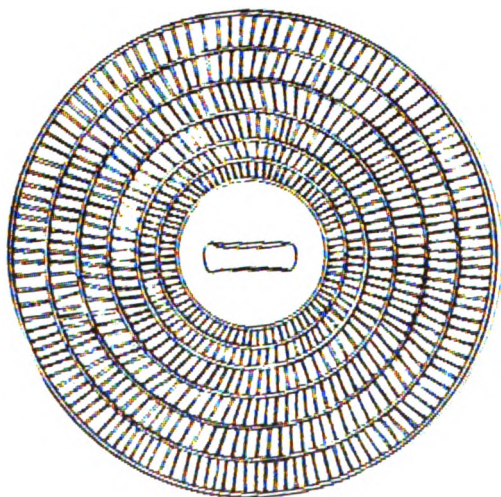


Fig. 6. Drawings of mirrors from M5 at Anyang, Henan province. D: 11.8 cm (1), 12.4 cm (2). After Yindai Fu Hao mu, p. 103, figs. 65, 68.



Fig. 7. Mirror from M2 at Chunhua xian, Shaanxi province. D: 5.5 cm. After KGYWW 1986 (5), p. 15, fig. 3:4.

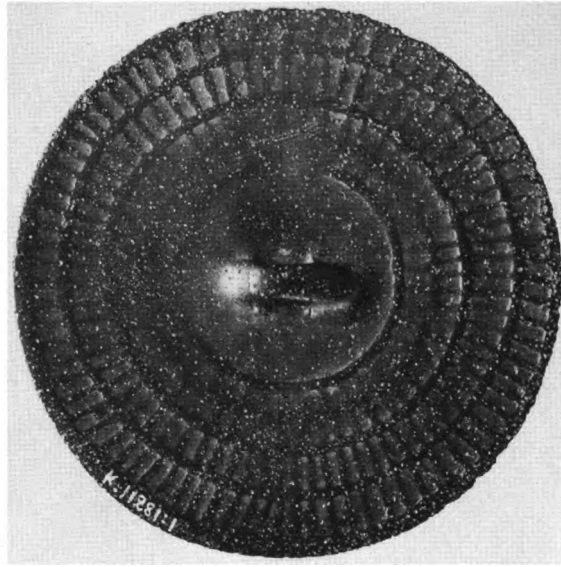


Fig. 8. Mirror reported to be from Zhangbei xian (formerly Hattim Sum), Hebei province. D: 6.9 cm. Collection of the Museum of Far Eastern Antiquities, Stockholm. Photograph courtesy of the Museum.

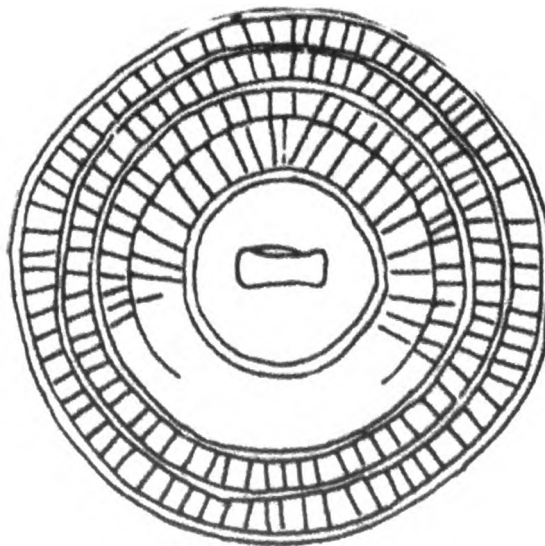
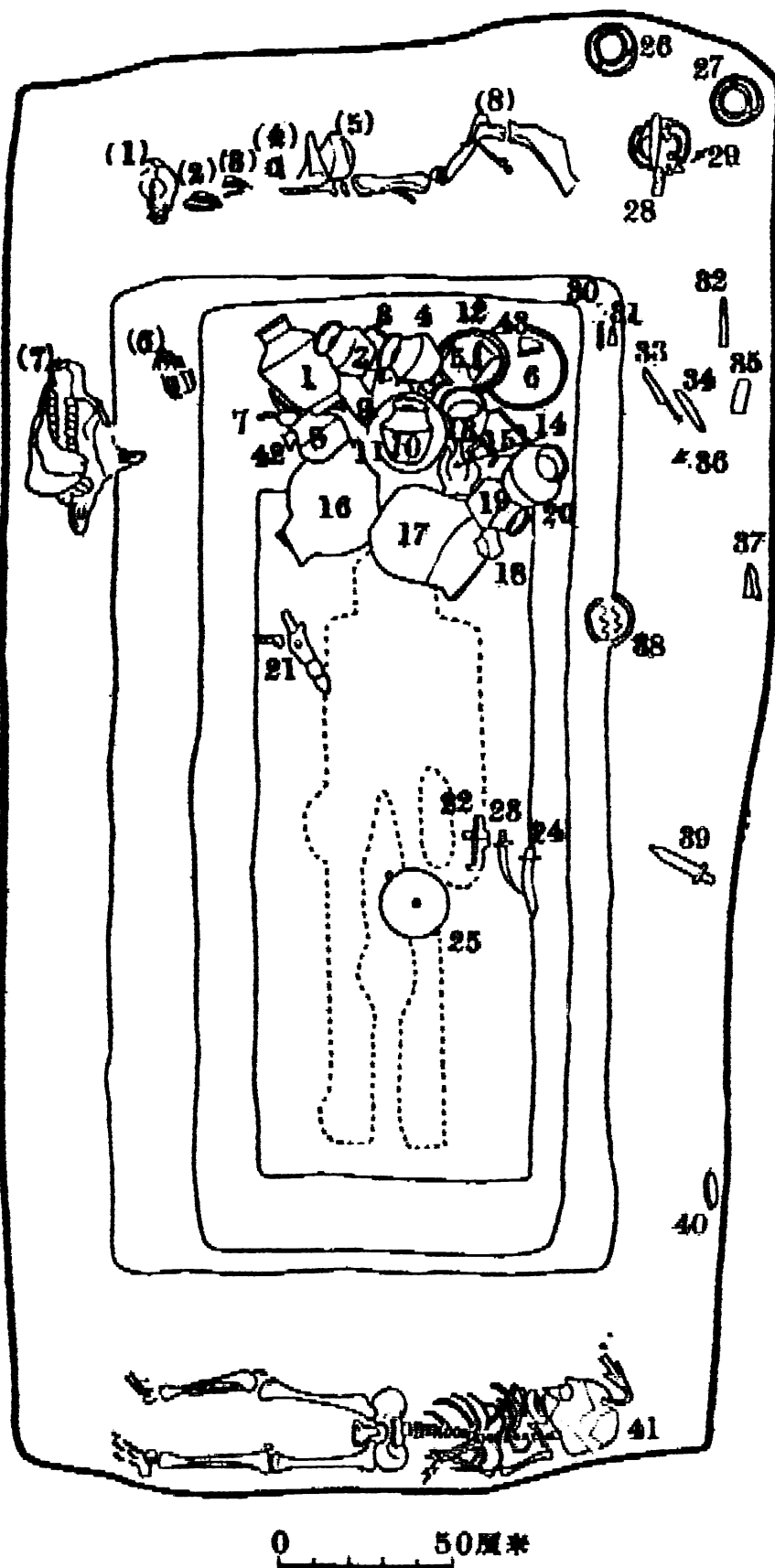


Fig. 9. Drawing of mirror reported to be from Zhangbei xian. After Lin, p. 252, fig. 51:8.

Fig. 10. Plan of M52 at Fangshan Liulihe, Hebei province. After KG → 1974 (5), p. 311, fig. 3.

Fig. 10



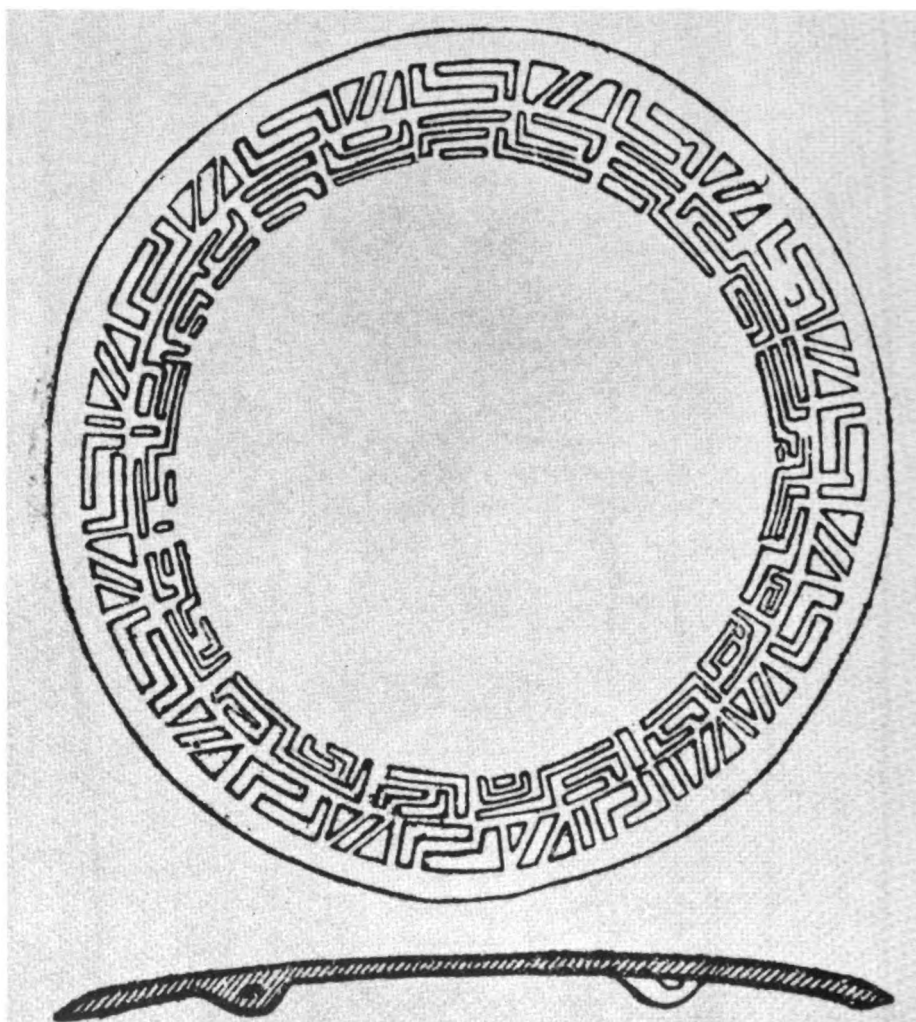


Fig. 11. Drawings of a mirror from M3 at Chaoyang Shiertaiyingzi, Liaoning province. D: 20.4 cm. After Kim in AA 1963 (3/4), p. [209], fig. 2.

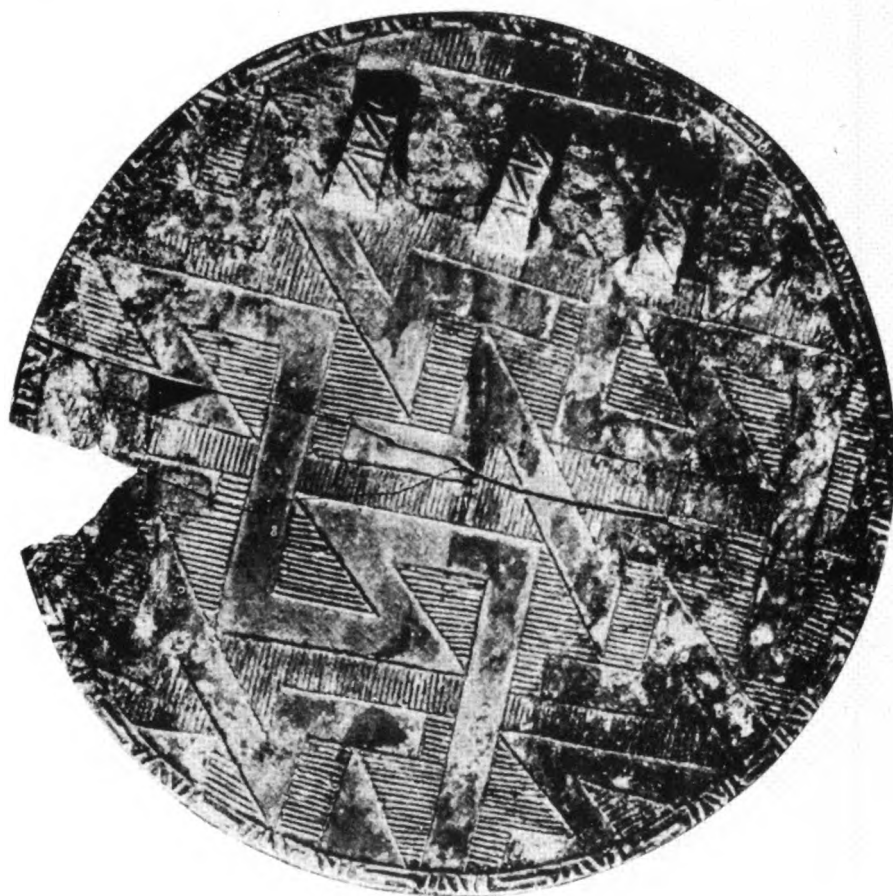


Fig. 12. Mirror from M3 at Chaoyang Shiertaipingzi. D: 22.5 cm. After Higuchi, pl. 16, fig. 32.

Fig. 13

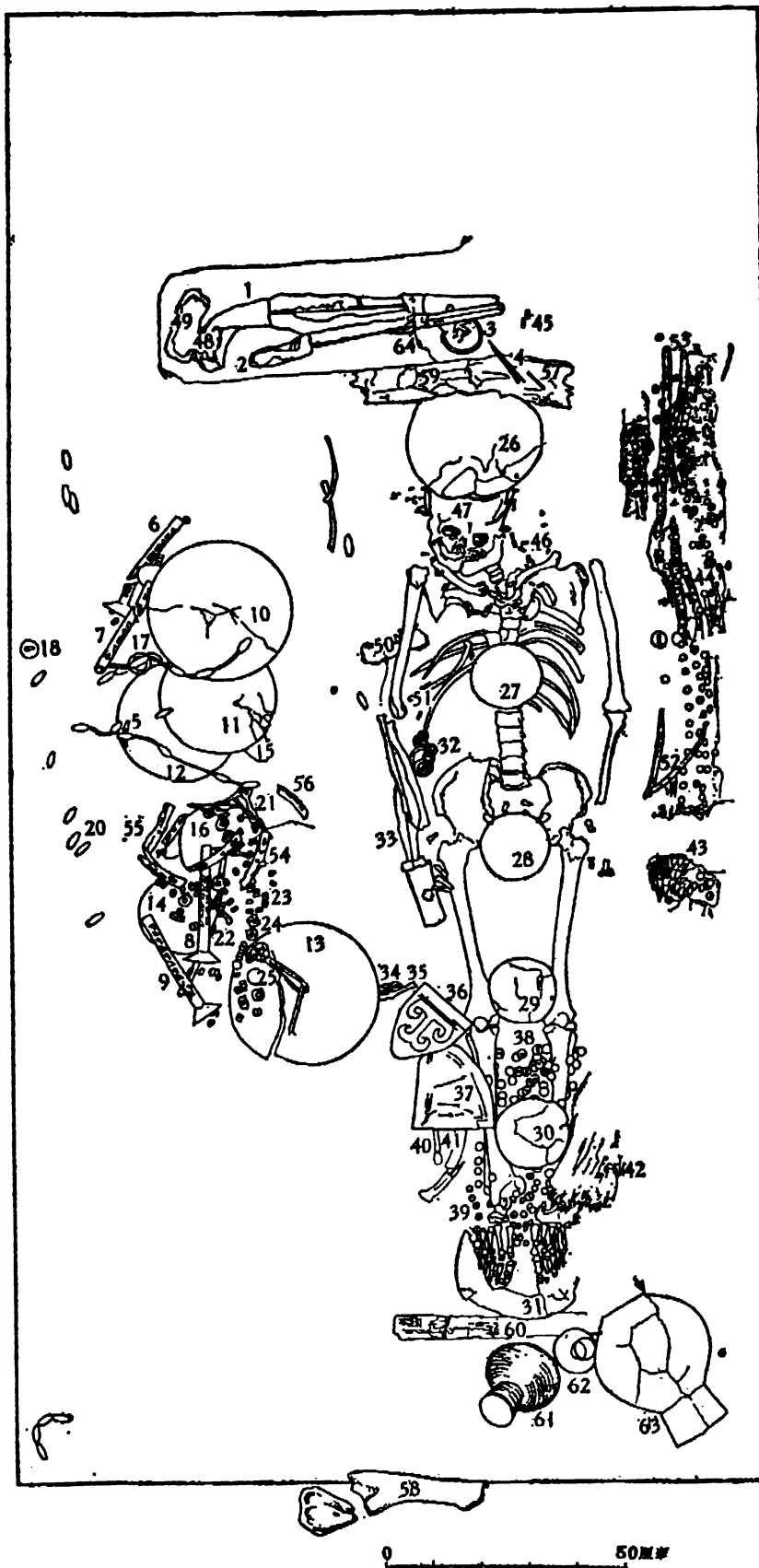




Fig. 14. Drawing of a mirror from M6512 at Shenyang Zhengjiawazi. D: 8.8 cm. After KGXB 1975 (1), p. 149, fig. 10:5.

← Fig. 13. Plan of M6512 at Shenyang Zhengjiawazi, Liaoning province. After KGXB 1975 (1), p. 142, fig. 3.

Fig. 15



Fig. 15. Mirror in the collection of the Museum of Far Eastern Antiquities, Stockholm. D: 8.9 cm. Photograph courtesy of the Museum.



Fig. 16. Mirror reported to be from the Minusinsk region of Siberia. D: 15 cm. After Umehara (1935), pl. 27:3.



Fig. 17. Mirror formerly in the Moriya collection, Kyoto. D: 8 cm. After Umehara (1959), pl. 2.



Fig. 18. Rubbing of mirror formerly in the Moriya collection. After Umehara (1968), p. 15, fig. 4.



Fig. 19. Rubbing of a mirror in the collection of the *Museen für Ostasiatische Kunst, Berlin*. After *Encyclopedia of World Art*, X, pl. 397 (upper right). Formerly in the H. Bidder collection.



Fig. 20. Mirror in the collection of the *Yale University Art Gallery*. D: 6.4 cm. Gift of Mrs. William H. Moore for the Hobart and Edward Small Moore Memorial Collection. Photograph courtesy of the *Yale University Art Gallery*.



Fig. 21. Mirror from M1612 at Shangcunling, Henan province. D: 6.7 cm. After Higuchi, pl. 1, fig. 1.



Fig. 22. Rubbing of mirror from M1612. After Shangcunling, p. 27, fig. 21.



Fig. 23. Rubbing of a mirror (enlarged) from M2 at Zhongning Nidingcun, Ningxia Autonomous Region. D: 7.4 cm. After KG 1987 (9), p. 775, fig. 4:9.

Fig. 24



Fig. 24. Casting mold for a mirror from Houma, Shanxi province. After KG 1962 (2), pl. 4:9.



Fig. 25. Casting mold for a fitting from Houma, Shanxi province. After KG 1962 (2), pl. 4:1.

Fig. 26



Fig. 26. Mirror from M53 at Changzhi Fenshuiling, Shanxi province. D: 8.2 cm. After Higuchi, pl. 1, fig. 2.

Fig. 27



Fig. 27. Fitting from M53 at Changzhi Fenshuiling, Shanxi province. D: 5.3 cm. After KG 1964 (3), pl. 5:7.

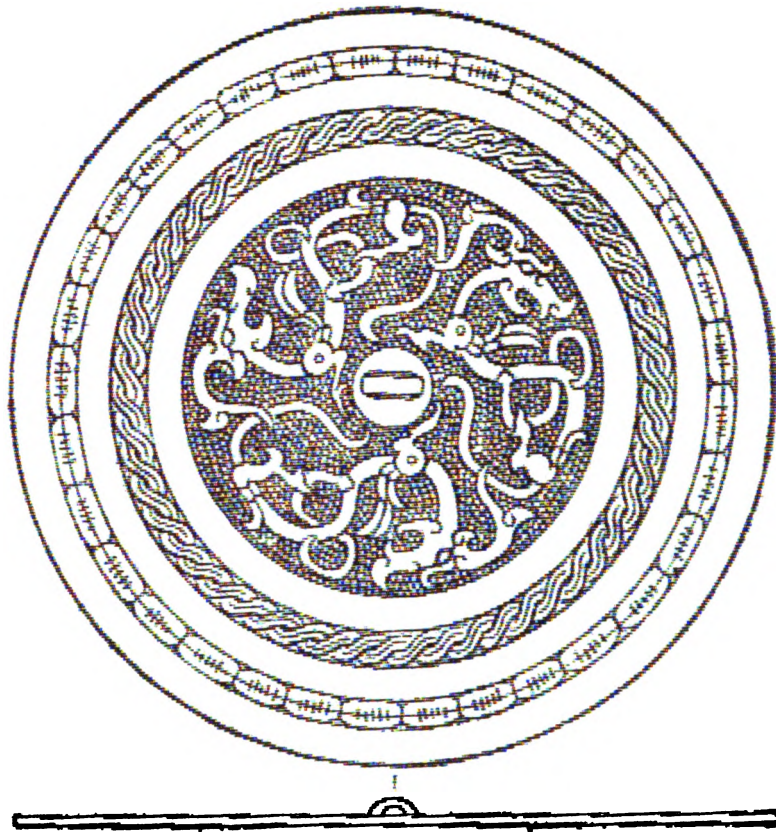


Fig. 28. Drawing of a mirror from M7 at Changzi Niujiapo, Shanxi province. D: 10.2 cm. After KGXB 1984 (4), p. 512, fig. 7:6.





Fig. 30. Mirror from M126 at Changzhi Fenshuiling, Shanxi province. D: 11 cm. After Higuchi, pl. 2, fig. 4.

← Fig. 29. Drawing of a fitting from M7 at Changzi Niujiapo, Shanxi province. D: 9 cm. After KGXB 1984 (4), p. 512, fig. 7:7.



Fig. 31. Rubbing of a mirror from M3 at Handan Baijiacun, Hebei province. D: 10.5 cm. After KG 1962 (12), p. 626, fig. 20.

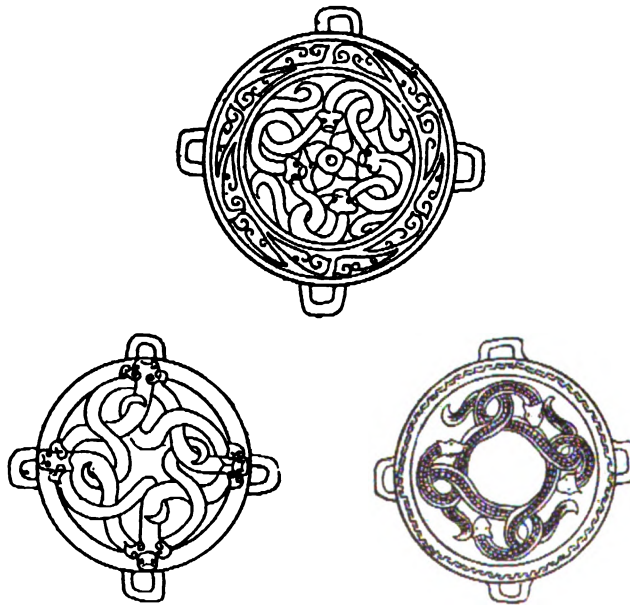
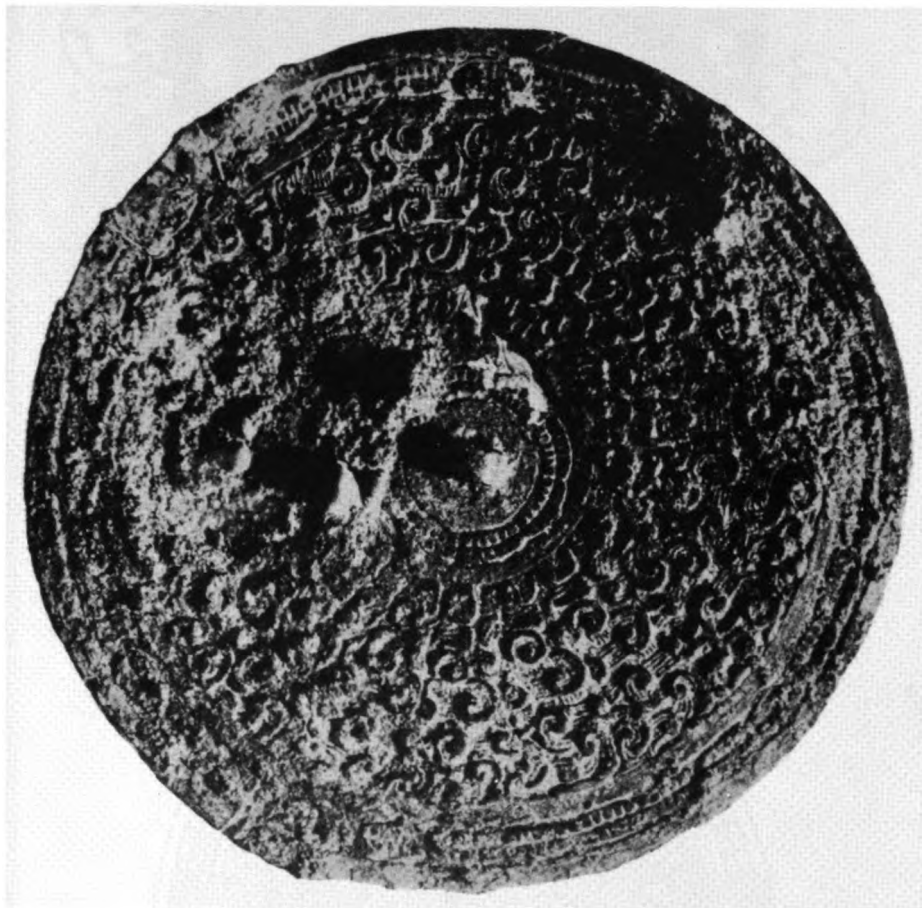


Fig. 32. Drawings of fittings from burials at Handan Baijiacun, Hebei province. Top: M3:64, D: 6.6 cm. Bottom left: M3:78, D: 5.1 cm. Bottom right: M57:17, D: 5.9 cm. After KG 1962 (12), p. 626, fig. 21:5–7.



*Fig. 33. Mirror from M2717 at Luoyang Zhongzhoulu, Henan province.
D: 10.8 cm. After Higuchi, pl. 2, fig. 5.*

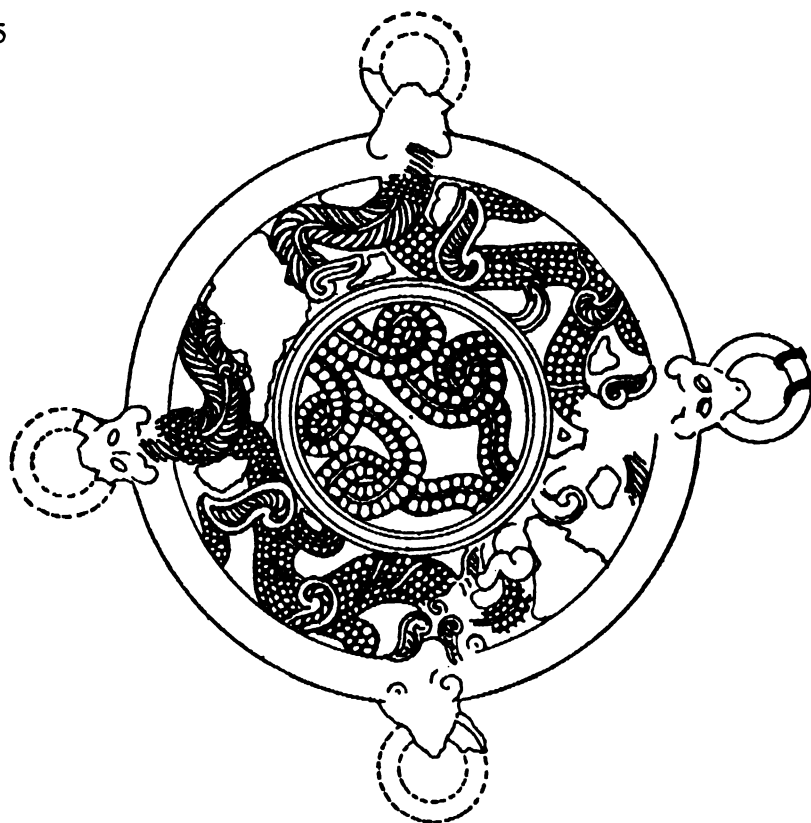


Fig. 34. Drawing of a fitting from M2717 at Luoyang Zhongzhoulü. D: 7.5 cm. After Luoyang Zhongzhoulü, p. 105, fig. 73:1.



Fig. 35. Drawing of a fitting from M2717 at Luoyang Zhongzhoulü. D: 8.1 cm. After Luoyang Zhongzhoulü, p. 105, fig. 73:2.



*Fig. 36. Circular fitting forming part of a composite mirror.
D: 8 cm. Collection of the Arthur M. Sackler
Museum, Harvard University, Cambridge,
Massachusetts. Bequest of Grenville L. Winthrop.
Photograph courtesy of the Museum.*



*Fig. 37. Reflective plate forming part of a composite mirror.
Reverse of Fig. 36. Photograph courtesy of the Arthur
M. Sackler Museum, Harvard University.*



Fig. 38. Rubbing of a mirror (identified as a circular object) from M1 at Liulige, Henan province. After Guo, pl. 89:5.



Fig. 39. Rubbing of a fitting from M1 at Liulige, Henan province. After Guo, pl. 89:4.



*Fig. 40. Fitting in the collection of the Musée Guimet, Paris.
D: 6.2 cm. After Visser in AA 1959 (1/2), pl. 1:6.*

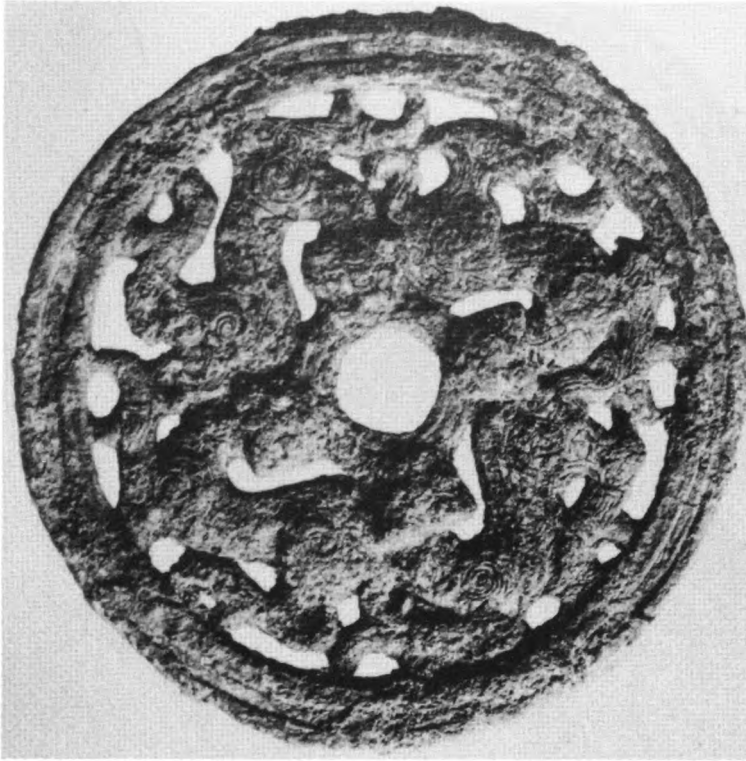


Fig. 41. *Fitting in the Kurokawa collection, Tokyo. D: 10.6 cm. After Umehara (1935), pl. 33:5.*



Fig. 42. *Mirror in the collection of the Shanghai Museum. D: 12.2 cm. After Higuchi, p. 37, fig. 14.*



Fig. 43. Fitting from M1 at Hui (xian) Guweicun, Henan province. D: 5.5 cm. After Hui xian, pl. 86:2.



Fig. 44. Mirror reported to be from Luoyang Jincun, Henan province. After Swallow, pl. 3.



Fig. 45. Mirror formerly in the Stoclet collection, Brussels. D: 12.7 cm. After Umehara (1935), pl. 38:1.



Fig. 46. Mirror in the collection of the Arthur M. Sackler Museum, Harvard University. D: 17 cm. After Umehara (1935), pl. 34:2.



Fig. 47. Drawing of a mirror in the Freer Gallery of Art, Smithsonian Institution, Washington, D.C. D: 19.5 cm. After Lawton, p. 84.



Fig. 48. Mirror reported to be from Luoyang Jincun, Henan province. D: 17.5 cm. After Higuchi, pl. 8.



Fig. 49. Detail of Fig. 48. After Higuchi, pl. 8.

Fig. 50

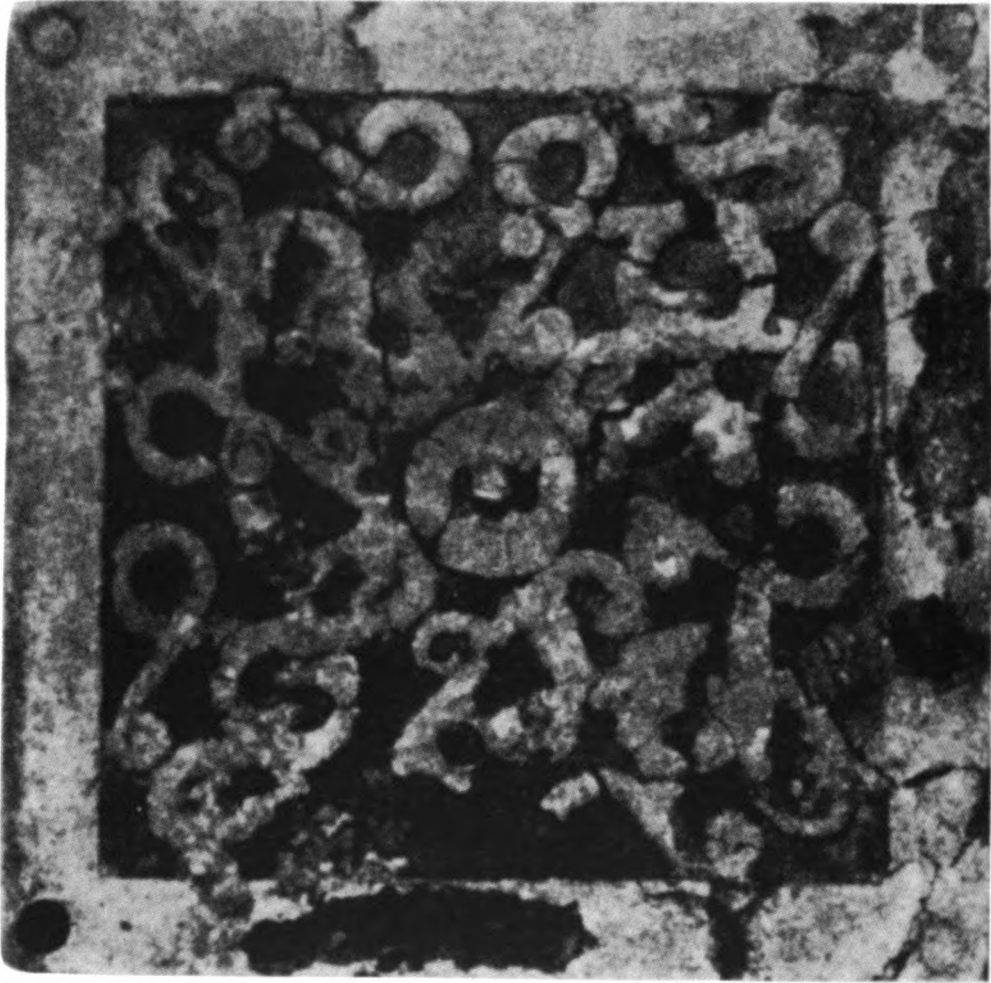
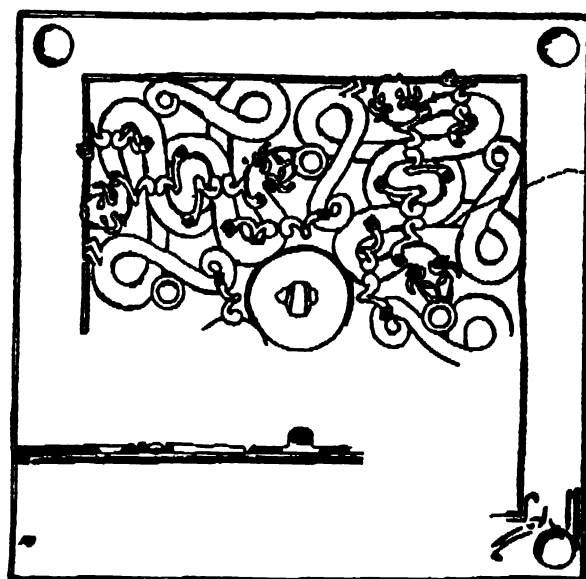
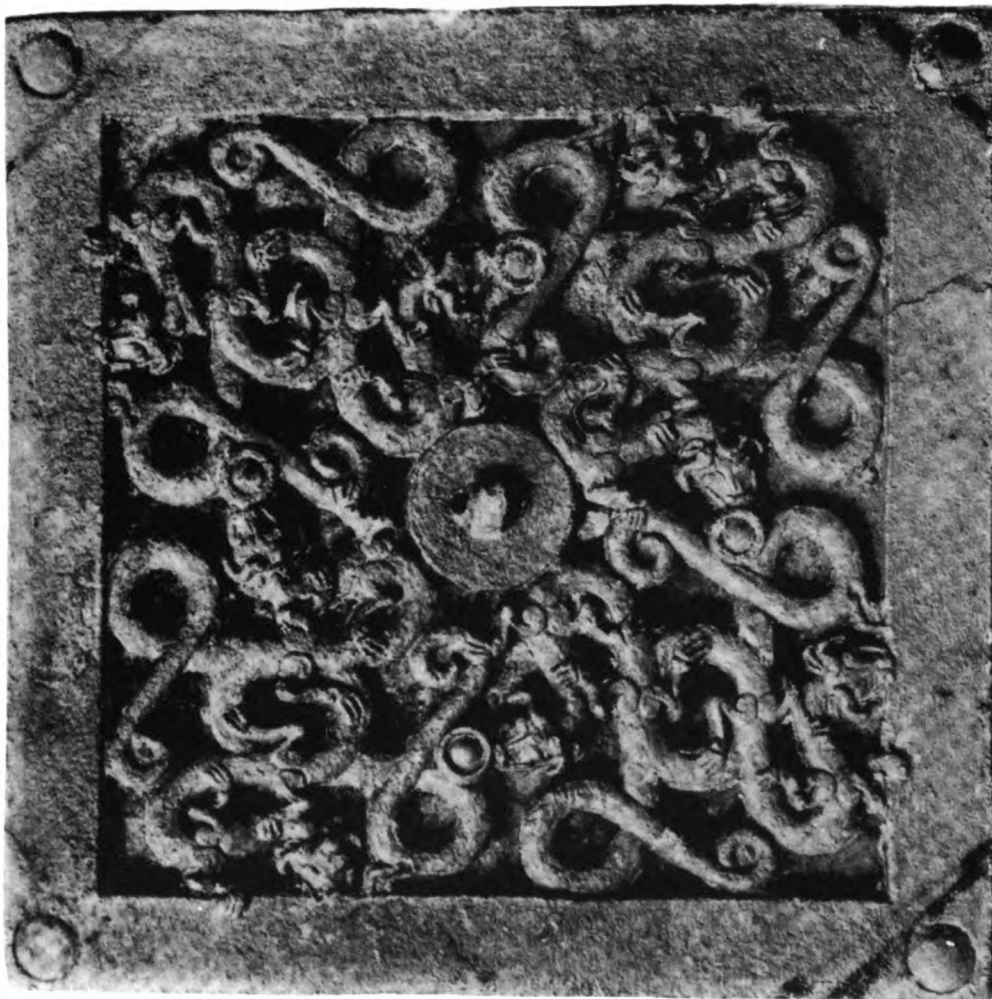


Fig. 50. Mirror from M1 at Changsha Fengshushan, Hunan province. D: 13.2 cm. After Hunan chutu tongjing, pl. 3.

Fig. 51. Mirror in the Hakutsuru collection, Kobe. D: 13.5 cm. After Umehara (1935), pl. 35:3.

Fig. 52. Drawing of mirror from the Hakutsuru collection, → Kobe. After Umehara (1935), p. 35, fig. 18.



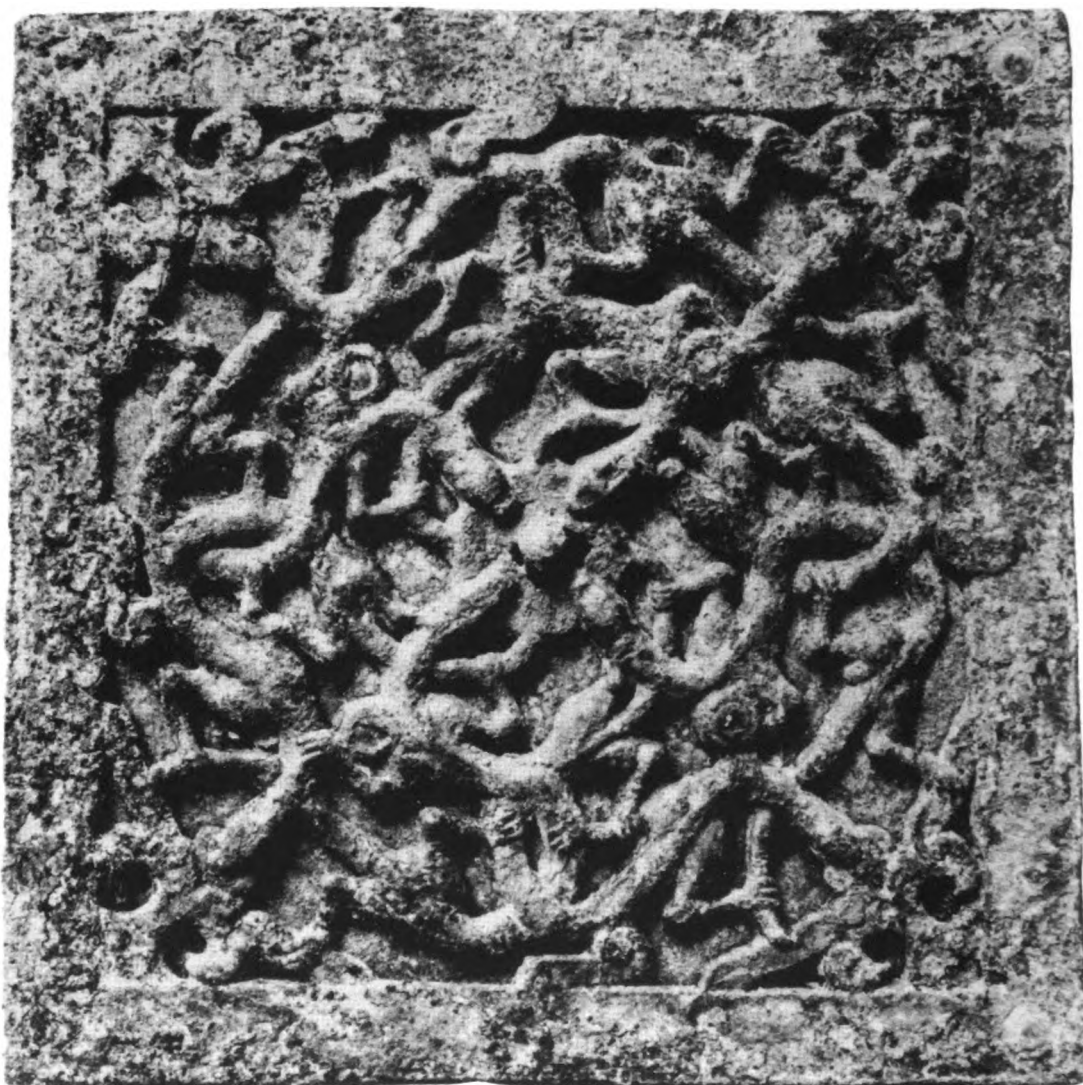


Fig. 53. Mirror in the collection of the Arthur M. Sackler Museum, Harvard University. D: 14.5 cm. After Umehara (1935), pl. 34:1.

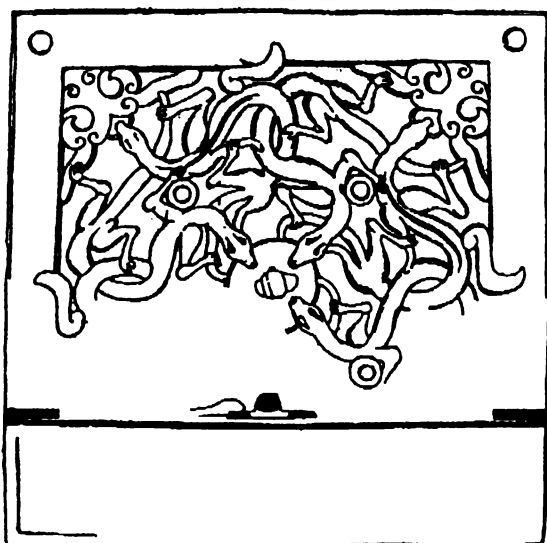


Fig. 54. Drawing of mirror in the Arthur M. Sackler Museum, Harvard University. After Umehara (1935), p. 35, fig. 19.



Fig. 55. Drawing of a circular object reported to be from Xinzheng, Henan province. After Sun, pl. 18.



Fig. 56. Mirror from the Ōkura collection, Tokyo. D: 10.9 cm. After Umehara (1935), pl. 33:2.

Fig. 57–58

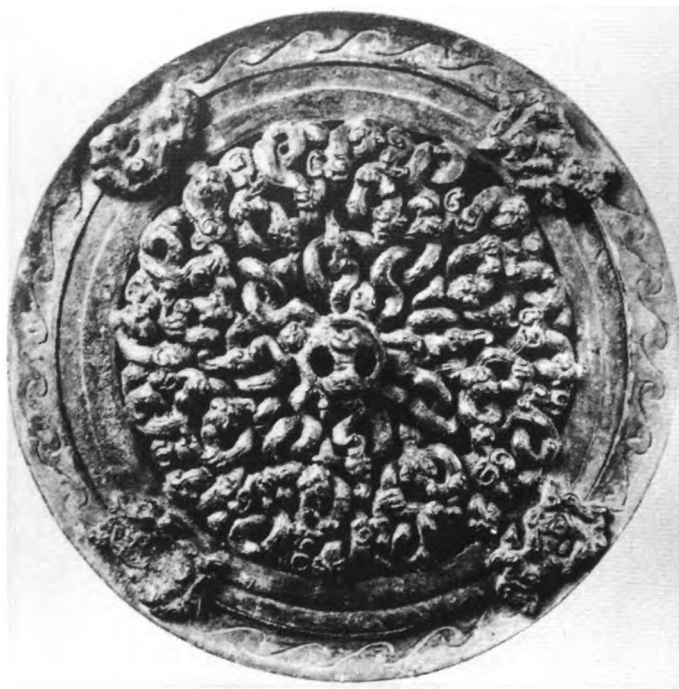


Fig. 57. Mirror in the collection of the Arthur M. Sackler Museum, Harvard University. D: 13.9 cm.
After Umehara (1935), pl. 32:1.





Fig. 59. Mirror in the collection of the Hallwyl Museum, Stockholm. D: 9 cm. Photograph courtesy of the Museum.

← *Fig. 58. Mirror in the Ōkura collection, Tokyo. D: 14.7 cm.
After Umehara 1935 (1935), pl. 32:1.*



Fig. 60. Rubbing (enlarged) of speculum from M306 at Shaoxing, Zhejiang province. After WW 1984 (1), p. 18, fig. 19.



Fig. 61. Speculum from M306 at Shaoxing, Zhejiang province. D: 3.6 cm. After WW 1984 (1), pl. 4:6.

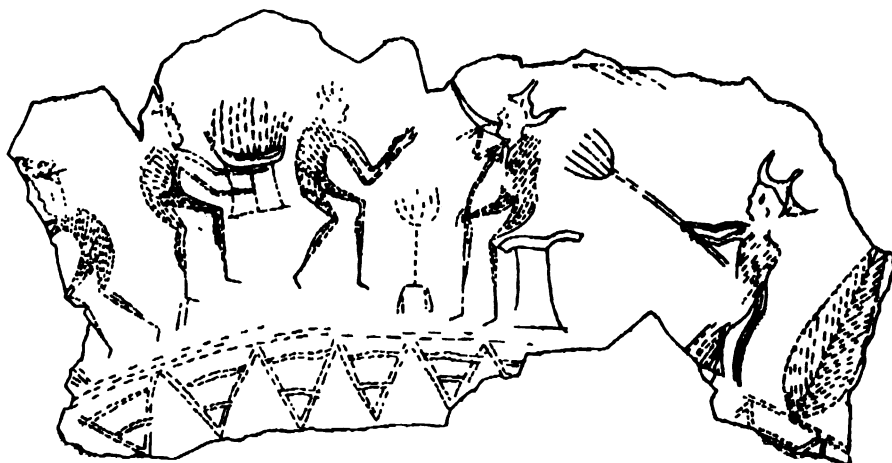


Fig. 62. Drawing of a fragment with needle-incised imagery from Chengqiao, Jiangsu province. After Weber (1968), fig. 24:f.

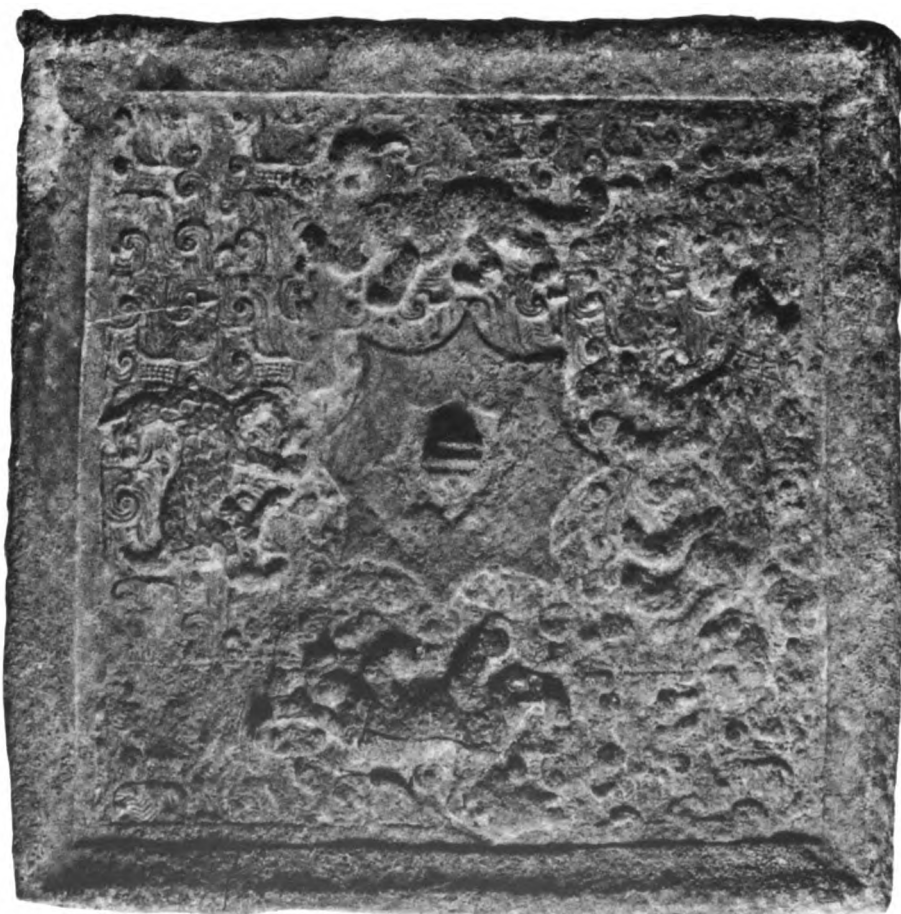


Fig. 63. Mirror formerly in the Moriya collection, Kyoto. D: 13.3 cm. After AA 1955 (3/4), p. 244, fig. 3.



Fig. 64. *Mirror in the collection of the Museum of Far Eastern Antiquities, Stockholm. D: 18.5 cm. Photograph courtesy of the Museum.*



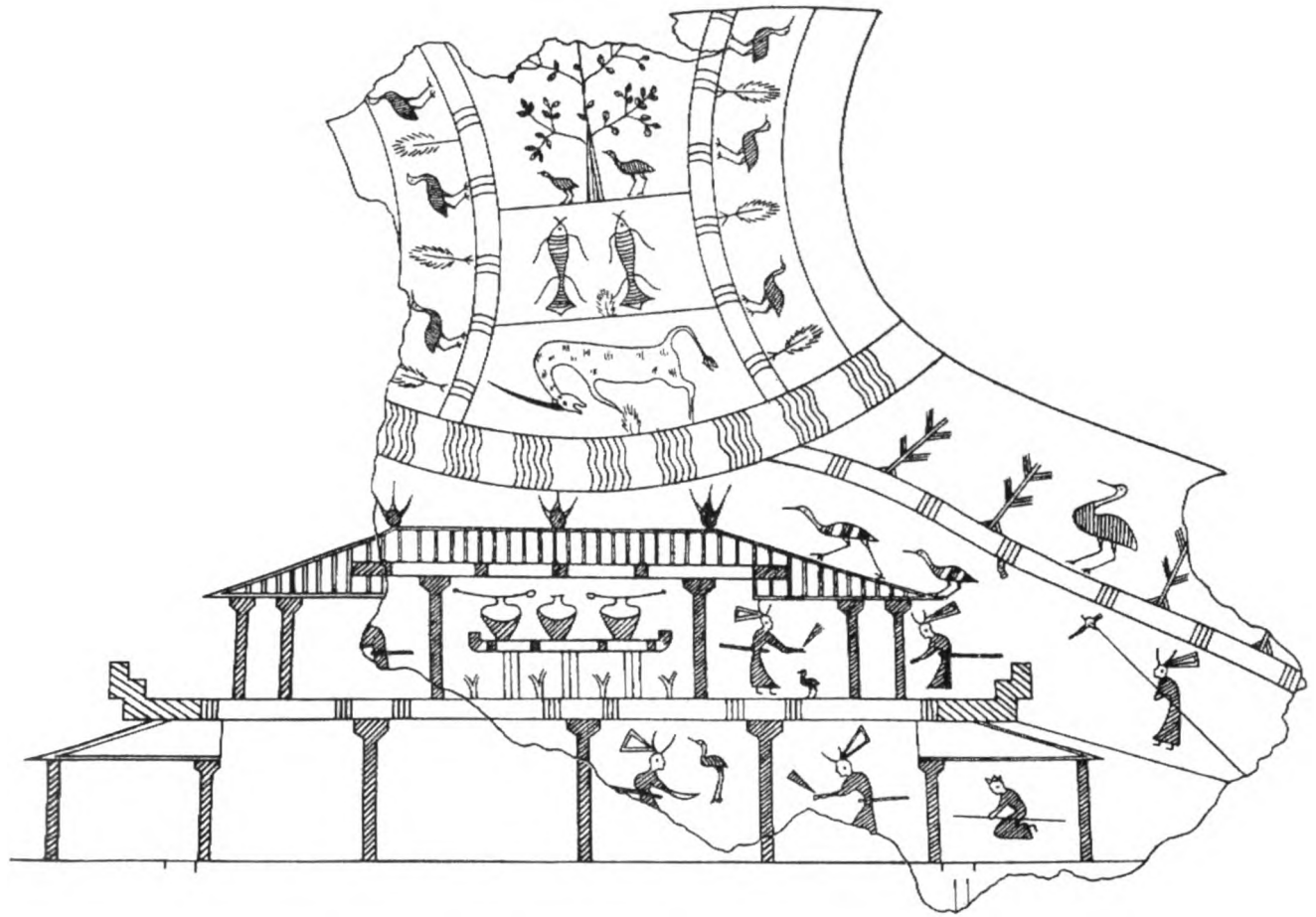


Fig. 66. Drawing of a fragmentary yi vessel from M12 at Changzhi Fenshuiling, Shanxi province. After Weber (1968), fig. 21:d.

← Fig. 65. Mirror formerly in the collection of King Gustaf VI Adolf of Sweden, now in the Museum of Far Eastern Antiquities, Stockholm. D: 15.6 cm. Photograph courtesy of the Museum.

Fig. 67

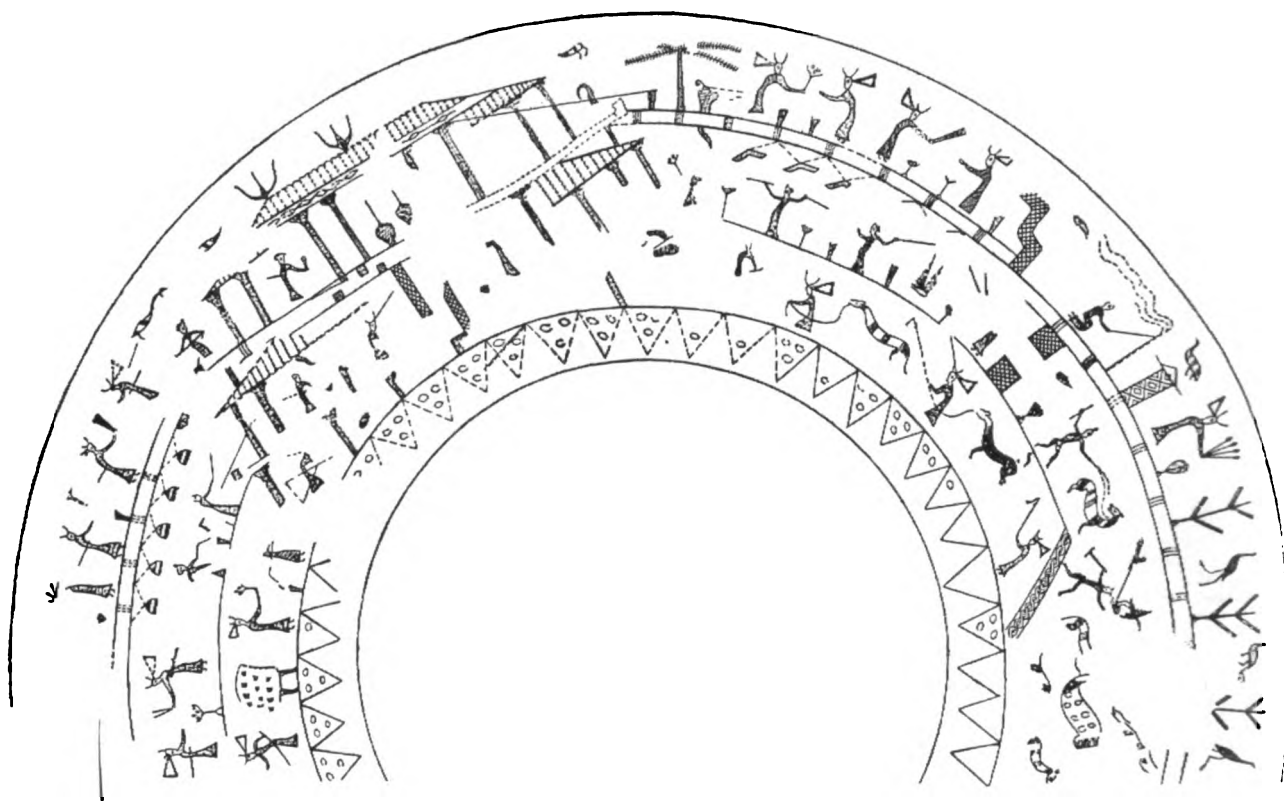


Fig. 67. Drawing of the interior of a jian vessel from M1 at Guweicun, Henan province.
After Weber (1968), fig. 22.



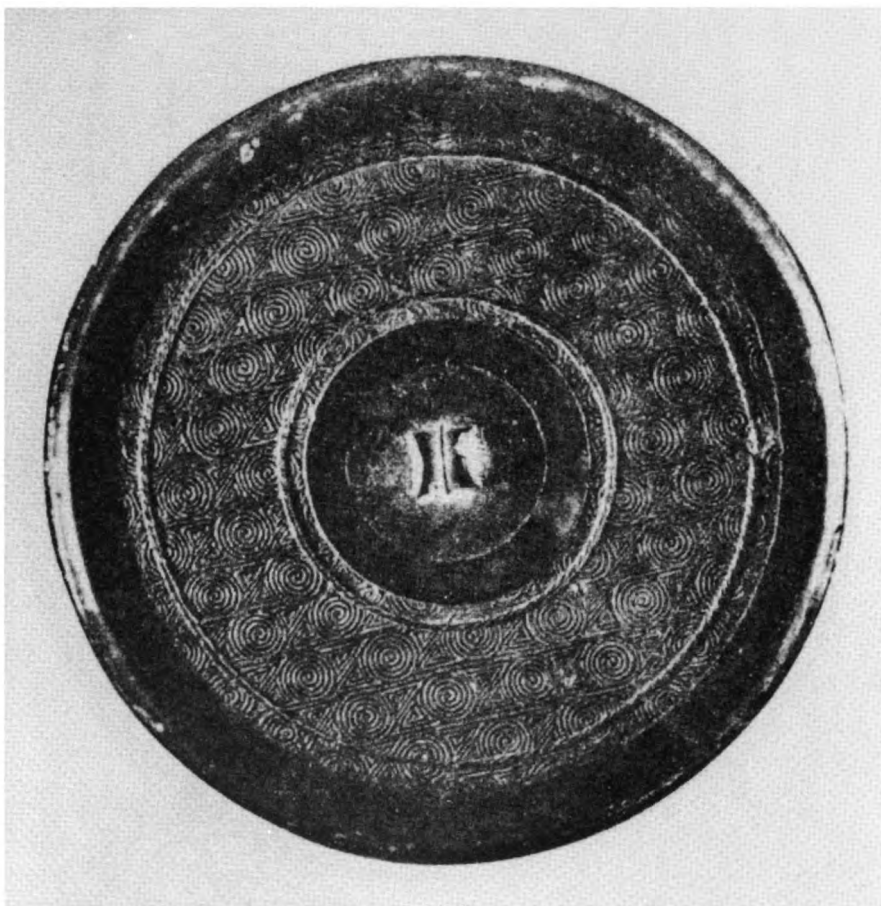
Fig. 68. Drawing (enlarged) from the interior of a pan vessel in the collection of the Palace Museum, Beijing. After KG 1983 (2), p. 162, fig. 5:4.



Fig. 69. Rubbing of a mirror from M1 at Changsha Shumuling, Hunan province. D: 9.8 cm. After KG 1984 (9), p. 791, fig. 3:1.



Fig. 70. Mirror from M7 at Changde Deshan, Hunan province. D: 19 cm. After Hunan chutu tongjing, pl. 18.



*Fig. 71. Mirror from M896 at Changsha Nianjiahu, Hunan province.
D: 11 cm. After Hunan chutu tongjing, pl. 9.*

Fig. 72



*Fig. 72. Mirror from M25 at Changsha Yangtianhu, Hunan province.
D: 11.6 cm. After Hunan chutu tongjing, pl. 13.*

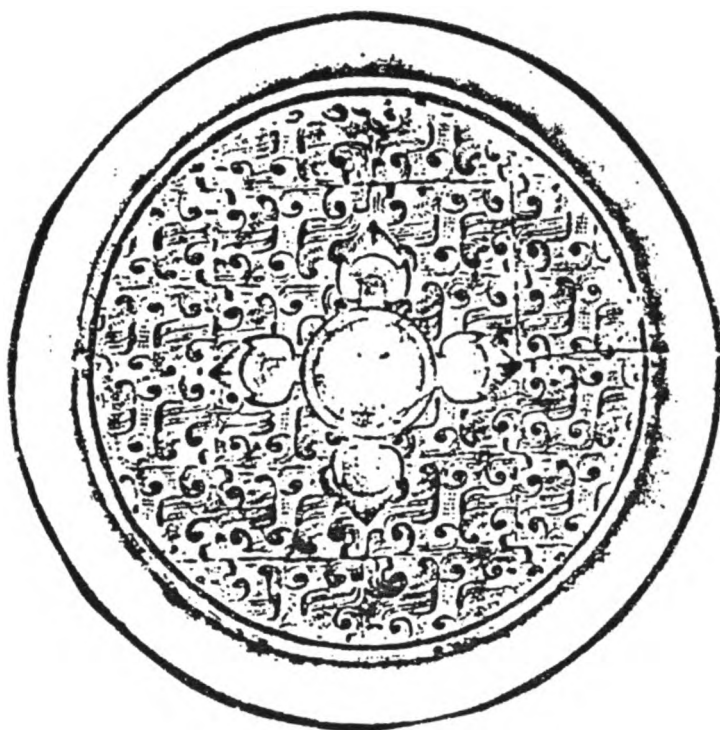


Fig. 73. Rubbing of a mirror from M117 at Zixing Jiushi, Hunan province.
D: 12 cm. After KGXB 1983 (1), p. 113, fig. 10:2.



Fig. 74. Rubbing of a mirror from M208 at Zixing Jiushi, Hunan province.
D: 11.7 cm. After KGXB 1983 (1), p. 113, fig. 10:3.

Fig. 75



Fig. 75. Rubbing of a mirror from M24 at Yiyang Heshanzhen, Hunan province. D: 14 cm. After KGXB 1985 (1), p. 106, fig. 23:2.

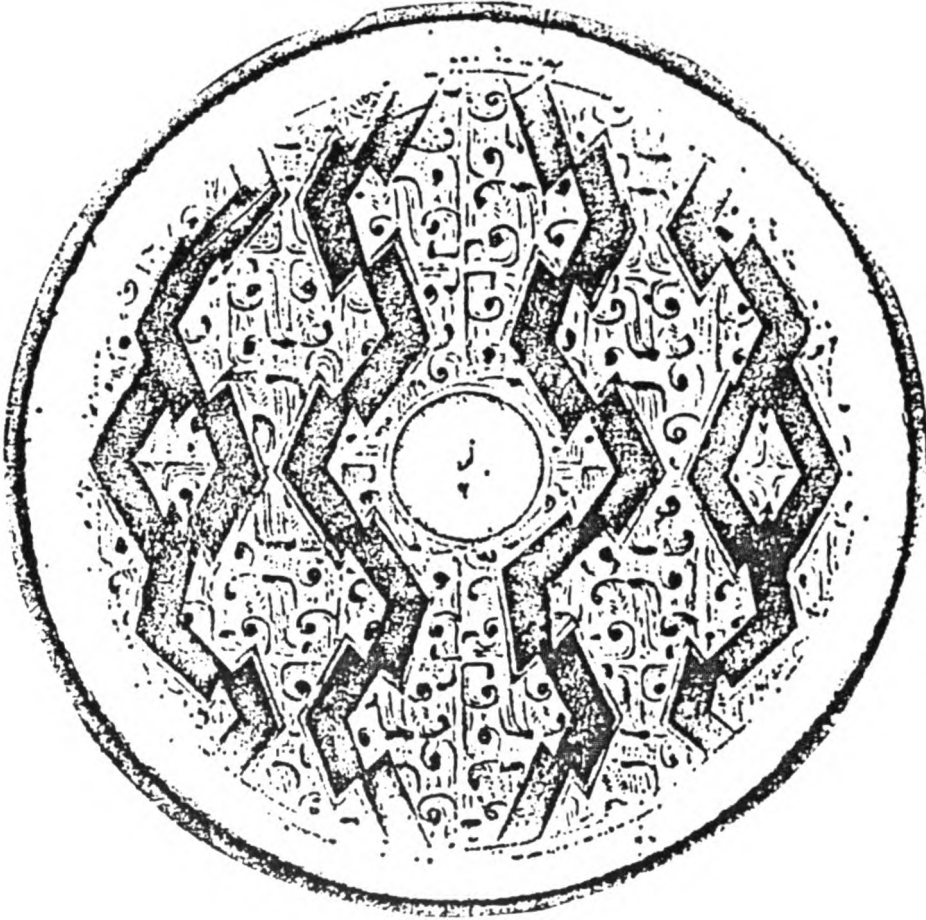


Fig. 76. Rubbing of a mirror from M29 at Yiyang Heshanzhen, Hunan province. D: 13 cm. After KGXB 1985 (1), p. 106, fig. 23:1.

Fig. 77



Fig. 77. Mirror from M3 at Changsha Nanmenguangchang, Hunan province. D: 12.3 cm. After Hunan chutu tongjing, pl. 21.



Fig. 78. Mirror from M8 at Changsha Yueliangshan, Hunan province. D: 17.8 cm. After Higuchi, pl. 12, fig. 24.



Fig. 79. Mirror from M744 at Changsha Doulipu, Hunan province.
D: 19 cm. After Hunan chutu tongjing, pl. 25.

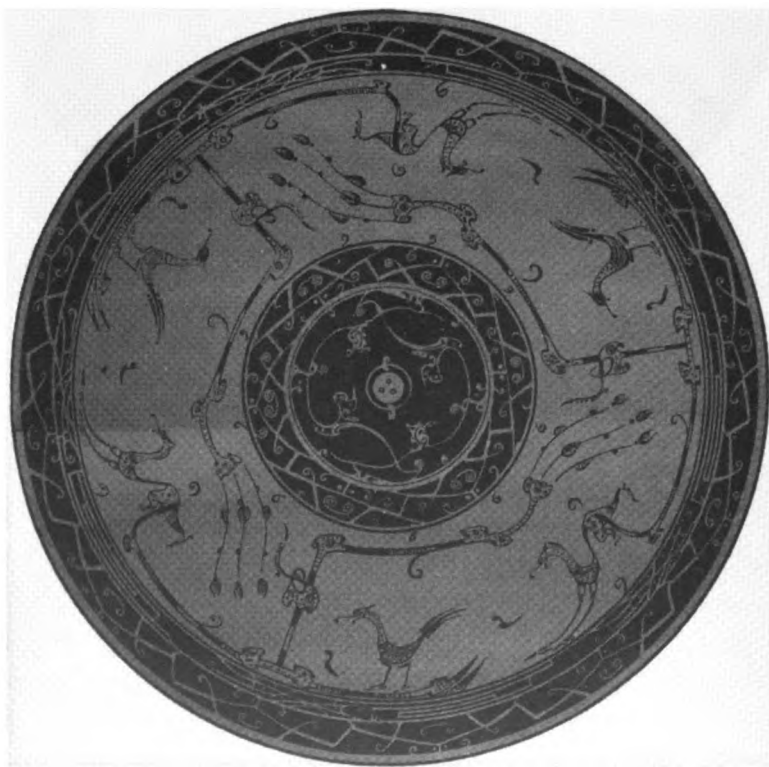


Fig. 80. Drawing of the interior of a pan vessel from an unspecified
burial in Changsha, Hunan province. After Qiang, pl. 15.



Fig. 81. Mirror from M42 at Changsha Fengshushan, Hunan province. D: 14.2 cm. After Hunan chutu tongjing, pl. 27.

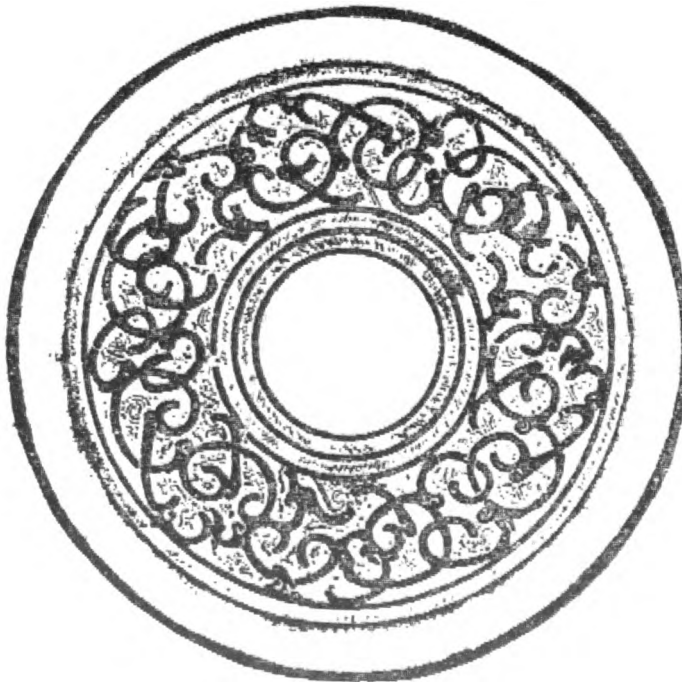


Fig. 82. Rubbing of a mirror from M186 at Zixing Jiushi, Hunan province. D: [1]2.1(?) cm. After KGXB 1983 (1), p. 113, fig. 20:4.

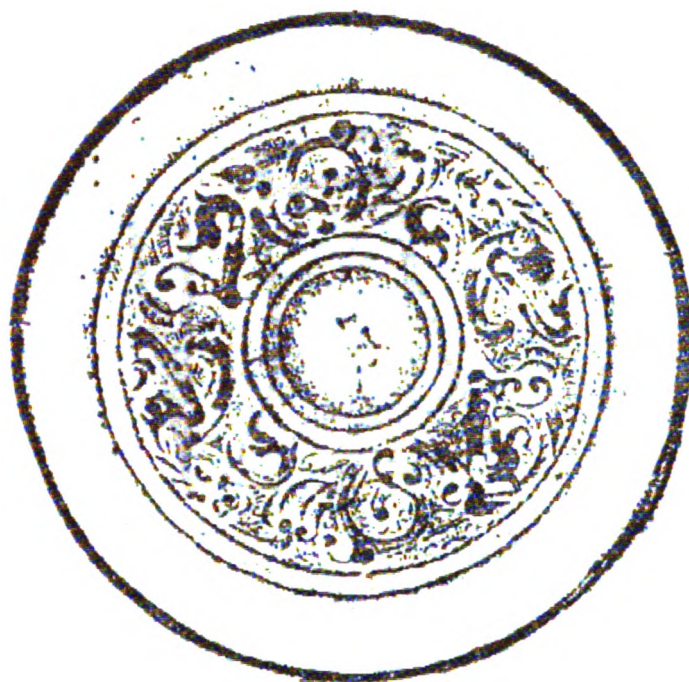


Fig. 83. Rubbing of a mirror from M14 at Yiyang Heshanmiao, Hunan province. D: 10.2 cm. After KGXB 1981 (4), p. 534, fig. 13:2.

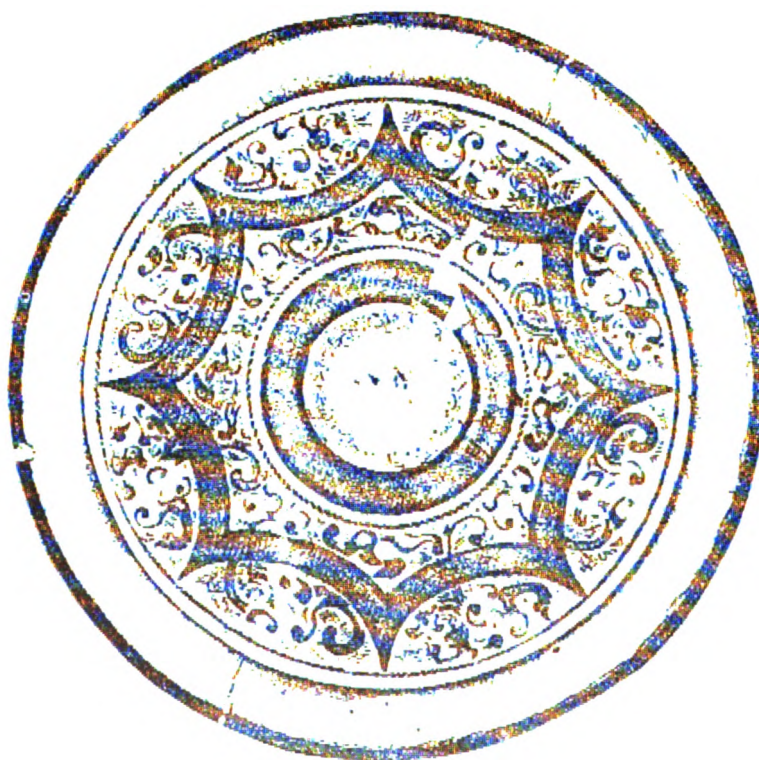


Fig. 84. Rubbing of a mirror from M1 at Yiyang Taohualun, Hunan province. D: 14.2 cm. After KGXB 1985 (1), p. 107, fig. 24:2.



Fig. 85. Rubbing of a mirror with six tridents. After Li p. 304, fig. 131.

Fig. 86



Fig. 86. Mirror from M9 at Yunmeng Shuihudi, Hubei province. After Li (1985), p. 313, fig. 138.



Fig. 87. Rubbing of a mirror from M1 at Changsha Mawangdui. Hunan province. D: 19.5 cm. After Changsha Mawangdui, p. 128, fig. 111.

The Origin of the Trigram Circles in Ancient China

by

Schuyler Cammann

The old Chinese trigrams were symbols composed of three horizontal lines, each either solid or broken at the center. The eight possible combinations of these lines, called the Eight Trigrams or *pa kua*,¹ have played a prominent part in Chinese religion, philosophy, and proto-science for more than two thousand years. Chinese scholars used them extensively in astrology, geomancy, and other forms of divination, as well as in medicine and alchemy.¹ Trigrams also indicated directions of compass dials, and, singly or in sets, they provided motifs for artists and artisans. Furthermore, taken in pairs, one atop another, the trigrams composed the sixtyfour hexagrams,² which are featured in the *I-ching*.³

Down to the twentieth century, Chinese people from every walk of life continued to use trigrams in various ways. But these were not confined to China. Trigrams were also adopted by other nations under Chinese cultural influence, such as the Japanese and Koreans, the Mongols and Tibetans, as well as various people in Indo-China and Malaya.⁴ However, in spite of the cultural importance of the trigrams, along with their widespread popularity, no one seems to have traced their historical development.

The Chinese generally arranged the Eight Trigrams on either of two circles. See Fig. 1. Tradition has ascribed the first of these to Fu Hsi, a renowned culture-bringer in China's mythical prehistory, and assigned the second to Wen Wang, King of Chou, whose son defeated the last Shang ruler to establish the Chou dynasty in the eleventh century B.C. Both these attributions are doubtless fanciful; but the revered names are useful for identifying and distinguishing the two familiar trigram circles.

Since the Han dynasty (206 B.C.–A.D. 220), Chinese scholars often discussed the symbolic significance of individual trigrams. For example, they associated the two principal trigrams with Heaven and Earth, and the six lesser ones with the sun and the moon, wind and thunder, seas and mountains, etc. They also assumed that the three lines in each individual trigram, from the bottom up, represented Earth, Mankind, and Heaven – or the Sky.⁵

1. For the trigrams and some of their uses, see Joseph Needham, *Science and Civilisation in China*, vol. 2 (Cambridge: Cambridge University Press, 1956), pp. 312–313, 325–35; vol. 4, pt. 1 (1962), pp. 296–97; vol. 5, part 5 (1983), pp. 50–67.

2. Several Western sinologists in recent times have written that the trigrams developed from the hexagrams; see Needham, *ibid.*, vol. 2, p. 343. This improbable idea is refuted in my article, "Trigrams, Hexagrams, and the Binary System in China," soon to appear.

3. For English translations of the *I-ching* with commentaries, see James Legge, *The Sacred Books of China: The Texts of Confucius, Part 2, The Yi King* (New York: Scribner's, 1899), and Richard Wilhelm, *The I Ching or Book of Changes*, tr. Cary F. Baynes, Bollingen Series, vol. 19 (Princeton: Princeton University Press, 1983).

4. See S. Cammann, "The Eight Trigrams: Variants and Their Uses," *History of Religions* 29.4 (1990): 301–317.

5. Some traditional meanings ascribed to the trigrams are given in the *Shuo Kua* Appendix to the *I-ching*. See Wilhelm/Baynes, *I-ching*, pp. 265–279. The table in Needham, *Science and Civ.*, vol. 2, pp. 312–13, is also comprehensive.

Yet the old writers did not say anything about the origin of the two familiar circles. Nor did they give any reasons for the seemingly illogical arrangements of the trigrams within them.

The absence of a precise order in both circles suggested that each of them must have evolved in a long process that had included several earlier forms; but there was no textual information to explain this. That made it necessary to study and analyze the actual circles, to try to discover how they might have been constructed.

Preliminary experiments with the Fu Hsi and Wen Wang trigram circles soon showed that each of these two familiar circles must have been the result of a long evolution involving earlier types. Early research also suggested that these trigram circles must have long been associated with two ancient, traditional diagrams called the *Lo-shu*^b and the *Ho-t'u*.^c⁶

In fact, it soon became clear that the relationship between the trigram circles and the diagrams had been so intimate that certain changes in the arrangements of the trigrams in the two standard circles must have been caused by adjusting them to conform with alterations in the *Lo-shu* and the *Ho-t'u*, respectively, when each of the latter was evolving into its final form.

The Lo-shu and the Ho-t'u

The *Lo-shu* and the *Ho-t'u* both belonged to the esoteric lore of Ancient China. Although early writers sometimes referred to them by name, the diagrams themselves remained hidden. They did not emerge into common knowledge until the Sung dynasty (A.D. 960–1279), when the traditional trigram circles were also publicly revealed.⁷

By then, any definite information about the development of the *Lo-shu* and the *Ho-t'u* had also long been forgotten. Only legends remained, telling that the *Lo-shu* had been revealed by the pattern on the back of a turtle who emerged from the Lo River, and that a dragon-horse had brought the *Ho-t'u*.

Chinese books in the Sung — and down into later times — always pictured each of these diagrams as a square frame containing sets of little circles connected by short lines.⁸ The latter resemble knots on cords, or beads on strings. These pseudo-archaic presentation were doubtless intended to represent an ancient system of numeration, to give the two diagrams an air of venerable descent from remote Antiquity, and perhaps to obscure their true identity.

6. For the *Lo-shu* diagram and its place in Chinese tradition, see S. Cammann, "The Magic Square of Three in Old Chinese Philosophy and Religion," *History of Religions* 1.1 (1961): 37–80. For the *Ho-t'u* diagram, see Michael Saso, "What is the *Ho-t'u*?" *History of Religions* 17.3 and 4 (1978): 399–416. For the evolution of both diagrams, see S. Cammann, "Some Early Chinese Symbols of Duality," *History of Religions* 24.3 (1985): 221–235.

7. Though much of the ancient lore publicly emerged in the Sung dynasty, a lot still remains concealed. See Saso, "Ho-t'u," p. 411.

8. For the traditional late renderings of the two diagrams, with their numbers represented by strings of white and black circles, see Needham, *Science and Civ.* vol. 3, p. 57. The black circles stood for Yang, the white ones for Yin.

For each diagram was basically a pattern of numbers intended to be easily manipulated through actual numerals. When each set of beads is replaced by a numeral equivalent to the number of beads in that particular set, the Lo-shu appears as nine numbers set in a square, while the Ho-t'u contains the same numbers, in a different order, arranged in a cross.

Further research revealed that the original Lo-shu probably had the numbers 1 to 9 arranged consecutively in two angles or arcs connected by a diagonal line, to form a snake-like reversed-S that made a "natural square" of three;⁹ while the first Ho-t'u would have contained these same numbers deployed in a cross. (See Fig. 2, a and b.)

It seems probable that the prototype for the Ho-t'u was first made by merely straightening out the bent arms of the original Lo-shu — assuming that the latter may have been considered as a form of swastika. However, it has been suggested that both diagrams split away from a more ancient, thirteen-digit pattern which had combined them; after which each underwent a separate evolution.¹⁰

Whether the Ho-t'u developed from the Lo-shu or whether both may have been taken from some earlier pattern, these two diagrams must originally have been closely associated. However, their subsequent different development and separate uses suggest that two diverse groups of schools or scholar-sages had each adopted one of them, wishing to express their own particular religious or philosophic ideas.

A separate development after an early kinship is quite possible. Because, until the First Emperor of the Ch'in unified China in the 3rd century B.C., the autonomous states of the later Chou period must have contained a number of independent schools of thought. Though the burning of the books and historical records by that emperor in 213 B.C. would have erased the names and teachings of these schools, some of their ideas could have lingered on, to pass into the thinking of later groups.

Only centuries later did the two diagrams come together again in a common system. In the meantime, each of them — with its associated trigram circle — evolved so very differently, that we can safely assume they must have developed independently.

Eventually someone altered the Lo-shu by exchanging two of its numbers (2 and 8), thus making it into the magic square of three.¹¹ See Fig. 5c. Meanwhile, the people who had the Ho-t'u cross also rearranged its numbers, transforming it so greatly that the more obvious signs of its original kinship with the Lo-shu were obliterated. See Fig. 6c. As a result, the ultimate, very different aspects of these two diagrams caused later scholars to guess (wrongly) that each had originated separately.

9. "Natural squares" and standard magic squares both contain the numbers from 1 to the square of the base number. In a magic square each row, every column, and the two principal diagonals all give the same sum. In a natural square only the lines passing through the center will give the same sum. Only the later Lo-shu was a true magic square. But in ancient times, before magic squares were known, the early Lo-shu's concentration on the Center, and its emphasis on the central number (5), would have been enough to convince credulous people that this diagram was very special. (For the symbolism of five, see note 25 below.)

10. For the hypothetical thirteen-digit "Diamond Plan," see Bart Jordan, *Man, Music, and the Calendar* (Durham, N.H., n.d.). He claims to have found evidence for it in earlier cultures. See also S. Cammann, "Symbols of Duality," pp. 223 ff.

11. See the first paragraph of note 9 above. For Chinese magic squares in general — most of which were constructed on the model of the Lo-shu — see S. Cammann, "Old Chinese Magic Squares," *Sinologica* 7.1 (1962): 14–53. For the contrast between Chinese magic squares and those of other cultures, see S. Cammann, "Magic Square," in *Encyclopaedia Britannica*, 1969–73 editions, vol. 15, pp. 573–75.

The Early Trigram Circle

No one has found any trigram circles from the Shang or Western Chou dynasties. However, Chinese archaeologists have recently examined certain late Shang and early Chou written signs composed of whole or broken lines that appear to have been used to record the results of divination, and they suggest that the trigrams might have evolved from those.¹²

After the ancient sages began to use the trigrams extensively — probably sometime in the later Chou — they assumed that the solid or broken lines that composed them each had individual significance. They decided that the solid lines represented the male, aggressive principle in the universe, while the broken lines stood for the complementary female, passive principle. Possibly then, but probably later, they named these two all-pervading principles Yang and Yin.¹³

Classification by gender played an important part in the evolution of the trigram circles. For example, the early sages distinguished entire trigrams as male or female. Moreover, they assigned a family status to each individual trigram, according to gender.

The first public indication of that appears in the *Shuo kua*^d appendix to the *I-ching*, probably written sometime in the Han dynasty. There the principal male (all yang) trigram, *ch'ien* (☰), was called the father; and the completely female (all yin) trigram, *k'un* (☷) was called the mother. The other six, subordinate trigrams were regarded as their children. Among the latter, the status of each child was established by a single line among the three found in each trigram: a solid line for male, and a broken one for female.¹⁴ See Fig. 3b.

This particular family system must have been a secondary, later development. For it seems that there had been an earlier system which, more logically, presented the three trigrams that had two solid lines and only one broken one — hence preponderantly yang — as the sons; while the three that had two broken lines and one solid line — being mostly yin — were the daughters. (See Fig. 3a.)

This earlier family system is not mentioned in the surviving texts, but we have ample evidence to show that it was used. For example, one can still see that it provided the basis for the construction of the primary trigram circle that ultimately evolved into the circle ascribed to Fu Hsi. Though that is no longer immediately obvious; because, as we shall see, the later exchange of two opposing trigrams broke the original order of its trigrams.

12. See Chang Ya-ch'u¹ and Liu Yu^m, "Some Observations about Milfoil Divination based on Shang and Zhou *Bagua* Numerical Symbols," tr. Edward Shaughnessy, *Early China* 7 (1981–82): 46–55. Their original article appeared in *Kao-gu*, 1981, no. 2: 155–163.

13. For the influence of yin-yang ideas in Chinese philosophy see Fung Yu-lan, *History of Chinese Philosophy*, tr. Derk Bodde, 2nd ed. (Princeton: Princeton University Press, 1952), vol. 1, p. 159–69, 382–387, etc. See also S. Cammann, "Symbolic Expressions of Yin-Yang Philosophy," in *Chinese Ideas About Nature and Society: Studies in Honour of Derk Bodde*, edited by Charles LeBlanc and Susan Blader, (Hong Kong: Hong Kong University Press, 1987), pp. 101–116. In this article, the illustrations and their captions contain some errors, because the publisher refused to send proofs for the authors to correct the printers' mistakes.

14. See Legge, *Yi King*, pp. 429–30. See also *ibid.* pp. 388–89.

By means of this early family system, the primitive form of the trigram circle which eventually became associated with Fu Hsi can be easily reconstructed, as shown in Fig. 4.

On this circle, the principal yang trigram for the father stands at the top; then moving down to the right one meets those for the eldest son, second son, and youngest son. At the bottom is the principal yin trigram for the mother; then continuing up the left side one finds those for the eldest daughter, second daughter, and youngest daughter.

Note the trigrams at the center of each side. At the right among the male trigrams, the one for the middle son is called *li* (☲); and at the left among the female trigrams, the one for the middle daughter is called *k'an* (☵). Although these were actually secondary trigrams, their prominent location led people to class them with the parent trigrams in the primary set, ranking above the other four.

As the yin-yang philosophy continued to develop, its concepts must have strongly influenced the interpretation of this early trigram circle. Though the particular steps also have long since been forgotten — probably because they evolved in an atmosphere of cult secrecy — we can still try to reconstruct them.

Old Chinese convention required that South should be at the top of a map or plan, North at the bottom, East at the left, and West at the right; so the four principal trigrams were probably taken to represent these directions — as they eventually did, much later.

Early Nature symbolism in many cultures associated the female principle with East and South, claiming that it began in Spring and flourished in Summer; while it associated the male principle with West and North, saying that that developed in autumn and presided in winter. This seasonal concept was probably also current in Ancient China. Perhaps the earliest trigram circle may have had the principal female trigram at the top, and represented the seasons in the circuit of the year. However, the early symbolism changed completely in the Chou dynasty, when the yin-yang philosophy developed and expanded during a period of incessant feudal wars which threw emphasis on the domination of male power.

As a result of this, new yin-yang concepts associated Yang with fire, light, and warmth, and associated Yin with water, shade, and coolness. Since the southland was warm and bright, while the northern territories were colder and darker for half the year, people now connected Yang with the South and Yin with the North. But the reversal was not complete: they still considered East mostly yin, because of dampness from the Eastern Sea and the yin association with water.

If there had actually been an earlier trigram circle, this would now have been rotated to bring Yang to the top, as shown in Fig. 4, to represent the radical shift. However, a circuit of the trigrams on this re-oriented circle could still depict the round of the year, with the development of the two principles. To trace the year, one would begin at the lower right (northwest) with the trigram for the youngest son, then move up and around counter-clockwise, to pass the *middle son for Spring (west)*, the *father* trigram for Summer (south), the *middle daughter for Autumn (east)*, and finally the *mother* trigram for Winter (north) at the bottom.

In this way, the early circle would have had special significance for an agricultural society that revered the calendar. Also, the fact that this early trigram circle could symbolize the passing of Time, as well as the directions of Space, is very

significant. Throughout the centuries, Space & Time diagrams have been strongly featured in China's art.¹⁵

In short, the early trigram circle must have been highly valued by its possessors in Early China, as it could so concisely represent the thought currents of that time.

For us, too, this early circle is important, because it also helps to explain the origin of some old conventions. For example, this early circle, constructed with the first family system, probably suggested two other family systems.

We recall that the first family system used two lines in a trigram to indicate the preponderance of Yin or Yang and hence that trigram's family status. On the early circle, its ordering could begin with the trigram at upper left, or the one at lower right, and move around counter-clockwise.

In contrast, the second family system – mentioned in the *Shuo-kua* appendix to the *I-ching* – determined the status of the child trigrams by only a single line. This second system can also be found in the early trigram circle, by beginning at lower left or upper right and moving clockwise around the circle.

The third family system¹⁶ also used a single line to designate the status of the child trigrams, but it ranked them in a different order. After the parent trigrams came those for youngest child, second child, then eldest. This system, too, can be found on the early trigram circle if one begins at the lower left or the upper right and moves clockwise, while viewing the trigrams from outside the circle. Read in this way, the trigrams are inverted; the primary trigrams look the same, but the four asymmetric ones are different. The three systems are shown in Fig. 3.

The Development of the Fu Hsi Trigram Circle

The Fu Hsi trigram circle evolved directly from the early trigram circle we have been discussing. The next step in its evolution is provided partly by the circle's close connection with the Lo-shu, and partly by the other traditional names that were given to the familiar trigram circles.

The Fu Hsi and Wen Wang circles were alternatively called *Hsien T'ien-t'u*,^e "First Celestial Plan", and *Hou T'ien-t'u*^f or "Later Celestial Plan", respectively. Western scholars have generally assumed that these names were Neo-Confucian terms, dating from the Sung dynasty. Then they have taken together the first two

15. Patterns and designs expressing Time and Space have been especially evident on Chinese bronze mirrors: notably those with the cosmic "TLV" pattern or its derivatives, which often express Time by the signs of the zodiac – in characters or as symbolic animals. See S. Cammann, "Significant Patterns on Chinese Bronze Mirrors," *Archives of the Chinese Art Society of America*, 9 (1955): esp. pp. 45–47, and Figs. 3, 8, 13, 14.

16. I have called this the third system because it is the third family system to be presented in this article. Historically it may have been the second in actual use.

words in each name – instead of the last two – and translated them in ridiculous ways.¹⁷

It seems far more likely that these names were actually ancient ones from the hidden lore that only came to the surface during the Sung. Furthermore, if each word is given its literal meaning, the names not only make good sense, they also carry us further on our search.

As their names explicitly suggest, each of the two traditional trigram circles, in the course of its evolution, must have served as a symbol for Sky or Heaven (the same word, *t'ien*, being used for both). This in turn would imply that each of the trigram circles had once served as a complement to an associated terrestrial diagram which was a symbol of the Earth.

For the sages of Ancient China imagined that Earth was a (lesser) reflection of Heaven, and they believed that Heaven and Earth were constantly engaged in reciprocal interaction. It was therefore fitting to represent each of these great entities by its own appropriate symbols.

The concept of "round Heaven, square Earth"¹⁸ – cited so often in the writings of the Han dynasty, in so many different contexts – must have come down from a still earlier time. It was a very natural idea that could have occurred to any thoughtful person who lived upon, or traveled across, the North China plain. For in that level area the sky appears to be closing down on all sides, suggesting a circular lid over the flat Earth, which extends out in the four primary directions. Also, on a clear night at that latitude, the sky appears to be slowly turning around the Pole Star, making it seem like a disk or wheel, or even a revolving umbrella.¹⁹

Probably the idea of a circular Sky over a square Earth was already old when Sung Yü,⁸ a poet and statesman of the fourth century B.C. in the kingdom of Ch'u,^h wrote a poem remarking that square Earth made the body of a chariot and round Sky was its canopy.²⁰ His metaphor was echoed again and again – in only slightly different wording – by Han writers, alluding to the ceremonial chariots that were still in general use.²¹ In short, well before the Han dynasty, the concept of "round

17. Western scholars have taken together the first two words in the alternative names for the two trigram circles, then they have tried to explain the names in connection with an irrelevant passage in the seventh wing of the *I-ching* (quoted in Legge, *Yi King*, p. 417). On this baseless assumption, they have translated *Hsien t'ien* as "Former Heaven," "Prior to Heaven," or even "What Antedates Heaven;" and *Hou t'ien* as "Posterior to Heaven," etc. All these expressions are meaningless.

See the comments regarding these terms in Needham, *Science and Civ.* vol. 5, pt. 5, pp. 52–53; though he also mistranslated them. [In *ibid.*, pp. 65, 129, and 248, Needham says the phrase *hsien t'ien* had a specialized meaning in Chinese alchemy, but that is irrelevant here.]

18. *T'ien yüan ti fang*,ⁿ mentioned in the *Huai-nan-tzû* 3.9b, and elsewhere. In conformity with this idea, the traditional cosmic building called the Ming T'ang^o is described as having been a rectangular structure with a circular roof. See the *Ta Tai li-chi*,^p (*Szû-pu tsung-k'an* ed.), 8.143. Scholars of later times referred to this concept as the *kai t'ien*^q or "Canopy Sky" theory.

19. People in the past did not realize that it was the Earth that was spinning; they imagined they saw a rotating sky on which the stars were fixed, while the "Seven Planets" (including the sun and the moon) moved independently below it.

20. See Sung Yü, *Ta-yen fu*,^r quoted in the *Pei-t'ang shu-ch'ao*^r (Yang chou' [Canton]; 1888) 141. 7a.

21. *Huai-nan-tzû* 1.3; *Chou-li* 40.5; and the *Hsiao-ch'e-ming*, by Li Yu,^u also quoted in *Pei-t'ang shu-ch'ao*, 141. 7a. By the 4th century B.C. the Chinese chariot had reverted to its early ceremonial status, so its symbolic aspects again become paramount. See Edward L. Shaughnessy, "Historical Perspectives on the Introduction of the Chariot into China," *HJAS* 48.1 (1988): esp. p. 227.

Sky" over "square Earth" pervaded Chinese symbolic thinking. People expressed this in many ways.²²

In this intellectual climate, the people who used the Lo-shu as a symbol for the Earth must have felt that they needed two symbols to represent the reciprocating relationship between Heaven and Earth.

The primitive Lo-shu began at the top — opposite to the later one — and it may have been represented in a circular form with a slanting line across the center. At any rate, the ancient Chinese seem to have regarded it as a celestial diagram, associating it with the Nine Halls (*chiu kung*'), which they believed were located in the sky. In fact, they even gave this name to the early version of the Lo-shu.

Since they already had a symbol for the sky or Heaven, they needed another figure to complement this celestial diagram: a symbol for Earth, as a terrestrial complement, to complete the idea of a well-balanced universe. They could make this by simply using a reversed form of the Lo-shu itself, in the form of a square. This was easily done, by starting its numbering at the opposite end, or else by simply rotating a second copy of the Lo-shu 180 degrees over the first. The result is shown in Fig. 5a.

When they put these two diagrams together, the early one on top of the later, each number on the terrestrial one had a complementary counterpart on the celestial Lo-shu. For example, the earthly 1 met a heavenly 9, and the earthly 2 met a heavenly 8, etc. So the sum of each of the nine pairs of numbers from the two diagrams would always be 10. In this way, both diagrams together could symbolize the balanced, reciprocal activity between Earth and Heaven.

In time, the terrestrial form of the Lo-shu became a highly complex symbol of the Earth and its phenomena. People saw in it the ancient regions of China with their chief mountains and rivers, the seasons of the year, reciprocal actions of Yin and Yang, and the Five Elements (currently called "the Five Movers"), etc.²³

Eventually the Lo-shu group must have felt the need for a more definite sky symbol in the form of a circle to complement this square diagram. Then, it was quite natural to turn to the early trigram circle (with the principal male trigram at the top, as shown in Fig. 4). They probably already possessed that among their stock of accumulated symbols.

To make that circle into a celestial symbol, they merely had to flip it over horizontally, to change its earthly directions into heavenly ones.²⁴ After that, they related it more closely to the celestial Lo-shu by giving the latter's numbers to its individual trigrams. See Fig. 5b.

We can be sure that the Lo-shu group did number the trigrams in this way.

22. Among the things that embodied this idea — besides the ritual hall called the Ming T'ang (cited in note 18 above) — was a divination board called *shih*, which had a round plaque that revolved upon a square panel. For the latter, see Donald J. Harper, "The Han Cosmic Board (*shih*)," *Early China* 4 (1978-79): 1-10, and Michael Loewe, *Ways to Paradise*, (London: Allen and Unwin, 1979), pp. 75-80 and Appendix 3, pp. 204-06. See also S. Cammann, "The Eight Trigrams: Variants and Their Uses," pp. 394-395.

23. See S. Cammann, "The Magic Square of Three," pp. 51, 56-60, etc.

24. The Chinese idea of a shift of directions in the sky was based on observation. If one holds a compass and faces north so the N points to North, then lifts the compass overhead face-down, the S will point north and the N will point south, while E and W keep their places. Chinese bronze mirrors or diagrams depicting the Four Directional Symbols would produce the same effect: when shamans or sages raised them overhead in certain rites, their symbols for North and South would also interchange directions.

Because — as we shall see — when they later exchanged two of the numbers on the Lo-shu, they also exchanged the two trigrams that occupied the same positions.

The Lo-shu had at its centre the number five. Five was also the central number on the early Ho-t'u, and it was the focus for all the other numbers on both diagrams. It was a recognized symbol for Centre in China, at a time when the concept of Centrality had a prominent place in Chinese philosophy and religion.²⁵ Thus five was probably also placed at the centre of the celestial trigram circle. If not, it was understood to be there, because the trigrams were numbered from 1 to 4 and from 6 to 9.

The association of the Lo-shu numbers with the trigrams had some immediate effects on the trigram circle. When people followed the S-shaped path of the numbers upon the circle, the former male child-trigrams became female, while the former female ones became male. Moreover, the designator for each of these child-trigrams was now only a single line, not two. Perhaps this was how the second family system originated.

Furthermore, the female or yin trigrams now diminished in age and status from the mother to the youngest daughter, while the male (yang) trigrams still advanced in prestige from youngest son to the father.

This altered progression of the trigrams probably explains a much-quoted saying in Old Chinese literature from Han or pre-Han times, which has puzzled scholars ever since. This said, "The Yang in its operation advances, the Yin in operation recedes."²⁶ That is exactly what happens when one traces the new course upon the altered circle.

The association between the trigrams and the numbers on the Lo-shu later had another effect. Someone took the early Lo-shu and exchanged the 2 with the 8 — probably so the Lo-shu diagram would show the circuit of the Five Elements, in the Warring States Period when the Wu-hsing theories were being originated. This made the Lo-shu a true magic square.²⁷

Then, in order to make the trigram circle conform to the altered Lo-shu, his group had to exchange the trigrams that corresponded to the shifted numbers. Therefore they exchanged the second (yin) trigram with the eight (third yang) trigram. These changes produced the *final Lo-shu* and the fully developed form of the Fu Hsi circle. See Fig. 4, c & d.

Exchanging these two trigrams broke the regular progression of the trigrams on the ancient circle, and it also ended the family system upon which that circle was founded. For it sent a male trigram to the female side, and brought a female trigram to the male side, upsetting the old order.

25. Because the Five Elements School emphasized the Five Elements — now known as the "Five Phases" or "Five Movers" — the old Chinese sages organized many things in fives. See Derk Bodde, "Types of Chinese Categorical Thinking," *JAOS* 59 (1939), 2.202. This emphasis on five may have been encouraged by the fact that the Lo-shu, and the early Ho-t'u, stressed the 5 at their centers, both mathematically and symbolically.

For Centrality, see S. Cammann, "The TLV Pattern on Cosmic Mirrors of the Han Dynasty," *JAOS* 68.4 (1948), pp. 166–67.

26. This idea was stated — possibly transmitted from an earlier writer — by Cheng Hsüan, in *I-wei ch'ien-tso-t'u*, (*Ts'ung-shu chi-ch'eng* ed.), p. 29.

27. I am grateful to Bart Jordan for pointing out to me the significant exchange of numbers in the Lo-shu. This exchange must have happened during the Warring States period in late Chou. Therefore, recent suggestions that the Lo-shu magic square was known in the Shang dynasty, are untenable. For some further effects of that exchange, see S. Cammann, "Chinese Trigrams and Hexagrams and the Binary System."

However, the old tradition of relating trigrams to the Yin and the Yang still persisted on this standard Fu Hsi circle. For its users now assumed that on this particular circle a trigram's bottom line (on the inside of the circle) would identify it as being yin or yang. Each yang trigram had a solid bottom line, and every yin trigram had a broken one.²⁸ This convention seems to have been confined to the final form of the Fu Hsi circle and its immediate variants. It had no effect in the Wen Wang trigram circles.

It seems remotely possible that this new classification for trigrams might have come first, altering the old circle, after which the Lo-shu numbers were exchanged to conform with that. But whether or not the exchange of trigrams might have preceded the exchange of numbers is not important. The main point is that the two changes were interrelated and they produced the final Lo-shu as well as the final form of the standard Fu Hsi circle.

When the Fu Hsi trigram circle eventually emerged into public view during the Sung dynasty, it gradually lost its spiritual and symbolic associations and became secularized. Therefore people were free to adopt it for practical uses. After they had forgotten the close connection between the Fu Hsi trigram circle and the Lo-shu, and the special meanings ascribed to that combination, they rotated the circle, so the chief yang trigram could go to the top (South), where it belonged in terms of later Yin-Yang cosmology.²⁹ In both form and position, this was now the final Fu Hsi circle. See Fig. 1 a.

In the new orientation, the circle's trigrams resumed their old function as indicators of the Eight Directions. Those for the father and middle son marked the South and West, and those for the mother and middle daughter stood for North and East; while the four subordinate ones indicated the intermediate points.

In this manner, the Fu Hsi circle was used to mark directions on the Chinese geomancer's compass. These instruments are still in active use at the present time, in Hong Kong and on Taiwan. It is highly significant that many of these modern geomantic compasses have on their dials, above each trigram, an arrangement of small dots representing its corresponding number on the Lo-shu.³⁰ For these dot-numbers show that some memory of the close connection between the Lo-shu and the Fu Hsi circle, which began more than two thousand years ago, has lasted into the twentieth century.

And yet, in spite of this terrestrial use of the Fu Hsi circle, vestiges of its earlier use as a Sky symbol still persist. For example, Chinese people continue to refer to this circle as the *Hsien T'ien-t'u* or "First Celestial Plan."

28. Marcel Granet, in *La Pensée chinoise* (Paris: Renaissance du Livre, 1934), p. 193, thought that the classifying of trigrams by their bottom line had been the basis for the original ordering of the Fu Hsi circle. However we now see that this was only a late development in the evolution of the standard Fu Hsi circle, as the result of the last major change in it.

29. In Western books, the Fu Hsi trigram circle is often presented as shown in fig. 5 d, because Occidental authors feel that South "doesn't look right" at the top of a picture.

30. For examples of the geomancer's compass dial with dots to indicate the numbers from the Lo-shu — relating the latter to individual trigrams in the Fu Hsi circle — see Needham, *Science and Civ.*, vol. 4, pt. 1 (1962), plate 119 facing p. 289, or Paul Carus, "Chinese Occultism," *The Monist*, p. 533.

The Evolution of the Ho-t'u and the First Wen Wang Circle

Studying the Wen Wang circle, otherwise known as the *Hou T'ien-t'u* or "Later Celestial Plan", I soon found there were two main types. One had been used for practical and ornamental purposes on various artefacts since the Han dynasty; while the second had been recognized as the standard one at least since the Sung dynasty, and was regularly paired with, or contrasted with, the standard Fu Hsi circle.

Attempting to analyze the first Wen Wang circle, I found that it greatly differed from the standard Fu Hsi circle, and must have developed in a quite different way. At first glance, the irregular arrangement of its trigrams appears to lack any precise organization. Yet it quickly became apparent that this circle, too, had probably evolved in a logical way – in close association with the second of Old China's ancient diagrams, the Ho-t'u. In brief, this trigram circle seems to have been evolved from a series of trigram crosses that matched the development of the Ho-t'u cross, during a complex process that may have extended over a long period of time.

We have seen that the earliest form of the Ho-t'u contained the same numbers as the Lo-shu in practically the same order, though its numbers were arranged slightly differently to display them in the shape of a cross. See Fig. 2. In that earliest form, this cross would have looked unbalanced, because it had higher numbers on the left arm and lower numbers on the right. So, as a first step, the people who used it must have exchanged the 2 with the 8 to achieve a better balance. See Figs. 2b and 6a.

Sometime after this preliminary alteration on the Ho-t'u, its possessors seem to have taken an interest in the trigrams, and someone in the group apparently decided to arrange these in the shape of a cross, to match the Ho-t'u.

In doing this, he seems to have had a special reverence for the yin principle. For he began with the principal yin trigram for the mother, and in each succeeding pair he first used the yin trigram. This may reflect the survival of a preference for the female principle when Chinese society still had vestigial traits from an ancient matriarchal system. That might also explain why the Chinese have traditionally used the term yin-yang, instead of yang-yin.

The early Ho-t'u diagram probably had at its centre an X, an old Chinese symbol for five, and very likely the designer retained this as a central figure on the first trigram cross.³¹ Around this centre, on the four arms of a Ho-t'u cross, he then placed the trigrams in complementary pairs, so that each trigram took the corresponding number from the Ho-t'u.³²

31. Five was written as X in the period between the sixth and third centuries B.C. See Needham, *Science and Civ.*, 3, p. 7.

32. Not only did the numbers associated with the trigrams by the two groups fail to correspond; the means for assigning these numbers did not correspond either. The Lo-shu group applied the numbers of their diagram to a pre-existing trigram circle; while the Ho-t'u group applied trigrams to their pre-existing numbered cross. Even though these opposite methods produced somewhat similar results, the differences again demonstrate that the two groups were operating independently, with different ways of thinking.

Above and below the central figure for 5 he placed the mother and father trigrams [at 1 and 9]; and, on right and left of the centre those for the youngest daughter and youngest son [at 3 and 7]. The trigrams for the second daughter and second son he put at the top and bottom of the cross (at 6 and 4); and those for the eldest daughter and eldest son at the ends of its right and left arms (at 2 and 8).

Then, or perhaps later, someone exchanged the trigrams at 2 and 6, giving each the number of its new placement. Now the trigrams for the eldest daughter and the eldest son were at the top and on the far right (at 6 and 8), while those for the second daughter and second son stood at the far left and on the bottom [at 2 and 4]. See Fig. 6d.

He probably did this to break the too-rigid symmetry, and he may have intended to make the placing of the trigrams less immediately obvious. For this was considered as a magic diagram, potentially dangerous in the hands of unauthorized persons who might copy it to try to use it for nefarious purposes. However, this rearranged trigram cross still had a neatly balanced pattern.

Note that in constructing this first trigram cross, its maker placed the youngest child trigrams – instead of the eldest – next to the parents. This was very appropriate in an arrangement that was primarily a yin one, for it would have reflected the nurturing aspect of the female principle. A mother instinctively keeps her youngest children close to her to protect them, feeling that the older ones can more easily fend for themselves.

Note also that, when the maker of this first trigram cross placed the youngest children next to the parents, and the eldest children last, he was actually using the third family system. Like the first family system, this third one is not discussed in any surviving text. However, I discovered that it had also provided the pattern for a set of hexagrams, which might have been constructed by the same group.

This hexagram set was preserved in the earliest surviving copy of the *I-ching*, placed in a tomb in the Changsha area in 169 B.C.³³ The book may have been composed some years before it was buried, and it could have contained earlier material. However, the burial date shows that the third family system used for making its hexagrams must have been known at least during the early Han dynasty, and the same system was probably used to make this Wen Wang trigram circle at some time considerably before that.

The next step in the evolution of the Ho-t'u diagram itself came when the group rearranged its regular cross to present its numbers in a more neatly balanced fashion. Since five was still a traditional symbol for Centre, they began by placing that number at the core of the new diagram. Then they arranged the other eight numbers in balanced pairs around it, and concluded the sequence by adding ten (two more fives) at the Centre. Thus the numbering began and ended at the core of the diagram. See Fig. 6b.

Using contemporary Chinese numerals, they could easily accomplish this latter step in a single figure. They just had to write a small cross – the accepted sign for ten – over the central X that then stood for five, making an eight-rayed symbol that could stand for fifteen. The resulting star, or rosette, would have had special

33. This hexagram set is reproduced in Edward Shaughnessy, *The Composition of the Zhou-yi* (Ann Arbor, Mich.: University Microfilms International, 1983), pp. 169–70. Its construction is briefly analyzed in S. Cammann, "Symbols of Duality," p. 250, and it is more fully discussed in my coming article, "Trigrams, Hexagrams and the Binary System in China."

significance as a symbolic device in the center of a cosmic plan. Indeed that has long been an almost universal symbol to represent the Eight Directions radiating from a cosmic centre.³⁴

Note specially that in making this new arrangement the designers exchanged the right arm of the cross with the bottom one, then interchanged the two numbers on each of those shifted arms.³⁵

They rearranged their trigram cross in the same way: first exchanging two arms on this cross, then interchanging the trigrams on these arms – exactly as they had changed the numbers on the Ho-t'u cross. See Fig. 6e. Only those specific changes could account for the irregular-looking displacement of the trigrams at this stage, in contrast to their orderly deployment on the previous cross.

However, the alterations created another kind of order for the trigrams. All the yang (male) ones now formed a row on the crossbar, while all the yin (female) trigrams stood on the horizontal column. This segregation emphasized the distinction between the yin and yang, but it also more fully symbolized the balance of the two groups with a fundamental unity within each.

As the next step in the evolution of the two sets of crosses, the group took their numbered cross and rotated it 180 degrees. Probably they did this to make its numbering less obvious and less easy to copy, because this too was a magic diagram to be reserved for private use. Regardless of why it was done, the rotation was very significant. For it created the final form of the Ho-t'u: the standard one that has been used for magic and ritual ever since. See Fig. 6c.

After this, the group apparently rotated the trigram cross in the same way, to match the standard Ho-t'u. See Fig. 6f. These rotations could have been done as part of the last alteration on the Ho-t'u and the associated trigram cross – not as independent actions. But the processes are easier to understand when they are described and illustrated separately. See Fig. 6, b & c, and e & f.

The final development of the Ho-t'u cross probably occurred when the people with the Ho-t'u felt they needed a celestial plan to represent Sky or Heaven, as a complement to their terrestrial Ho-t'u. Since the latter could represent the Earth in terms of its cardinal directions.

First they may have simply overturned the last numbered cross, so its inverted form would display the numbers in a celestial order as shown in Fig. 6g.³⁶ Then the new cross could now fit down over the final Ho-t'u, as its celestial complement.³⁷ After that, they could have turned over the third trigram cross to match this, as suggested in Fig. 6h.

34. The finer, more comprehensive, TLV mirrors usually had eight projections raying from the emphasized center of the inner pattern representing Earth (four large and four small), and the later Tibetan mandalas – influenced by the TLV pattern – had an eight-petal lotus at the center. See S. Cammann, "Suggested Origin of the Tibetan Mandala Paintings," *The Art Quarterly* 13.2 (1950): Figs. 1 and 2, on p. 106. Also, Oriental rugs with cosmic patterns often had a small eight-petal flower at the center. Compare with these the Western eight-point compass rose.

35. For a more detailed description of the evolution of the Ho-t'u, and the probable reasons for these alterations, see S. Cammann, "Symbols of Duality," pp. 230–35.

36. See note 24 above, regarding differences in directions between Earth and Sky.

37. Granet, in *Pensée chinoise*, pp. 199–200, realized that Chinese tradition and custom required a celestial complement for the Ho-t'u, so he imagined that people placed a pattern derived from the familiar (final) form of the Lo-shu over the familiar (final) Ho-t'u, to make the two diagrams complementary. But the Lo-shu and the Ho-t'u – once so similar – had lost their compatibility by the time that each had attained its final form; so they could no longer match. However, a trigram cross could easily fit over the numbered cross.

More likely, they would have simply turned over the last trigram cross, so it could fit over the final Ho-t'u cross as its celestial complement. In either case, when the pattern was turned over, as shown in Fig. 6h, all the trigrams on the horizontal bar of the cross would have been inverted, while the upper and lower ends of its central column changed places. Thus it produced a mirror image of the last trigram cross.³⁸

Perhaps it may have literally been a mirror image. For this new trigram cross could also have been copied directly from a reflection of the last one, on a bronze mirror held face down over it. If a bronze mirror had actually been used for overturning the pattern of the final trigram cross, its round shape could have then suggested the idea of a circular sky pattern to symbolize the "roundness of Heaven."

Anyhow, after the Ho-t'u group had their celestial trigram cross, when they decided they wanted a circular sky symbol to use in place of it — to conform with the tradition that the sky was round — its trigrams were neatly positioned for that. It was only necessary for someone to remove them from the celestial cross and set them down around a circle.

After taking the male or yang trigrams off the horizontal bar from left to right, he would have begun at the center of the left side on the circle and moved down to the right, to put them around the bottom of the circle. Then, taking the female or yin trigrams off the vertical column from top to bottom, he would continue on with them, moving upward to the left to put them around the top of the circle. The final result of all these operations was the first Wen Wang trigram circle. See Fig. 6i.

The Standard Wen Wang Circle

In the course of time — probably long after this — the Ho-t'u group must have felt that they needed a yang trigram circle: either to complement their first (yin) circle, or to use independently. That is, they wanted an opposite circle which would begin with the principal yang trigram for the father, and give preference to the male children.

When one of them undertook to do this, he began as had been done in the earlier case, by setting out the trigrams in pairs on a Ho-t'u cross; but this time the process was somewhat less complicated. First he would have placed the father trigram, as the principal yang one, above the central figure, and the mother trigram as the principal yin one, below that; then put the ones for the eldest son and eldest daughter at the left and right of the centre. Next, he would have set the trigrams for the second son and second daughter at the top of the cross and at the end of its right arm; and lastly the ones for the eldest son and eldest daughter at the end of the left arm and at the bottom. After this, all the yang trigrams stood at upper left on the cross, while all the yin trigrams were at lower right. See Fig. 7a.

38. This inversion and the resulting mirror-image — or an actual mirror's reflection — make it appear that the top and bottom trigrams kept their places. They did change; but each of these trigrams when it is inverted resembles the other.

Note that he took the children in descending age, placing the eldest next to the parents. Therefore, he must have been using the second family system.

His next step was to exchange the right arm of the cross with the top one, at the same time exchanging the numbers on each of these – as had been done at the second stage in the development of the Ho-t'u. This made a better distribution, putting all the yang trigrams on the horizontal bar and all the yin ones on the central column. See Fig. 7b.

Now, this trigram cross conformed directly with the (terrestrial) Ho-t'u; so it required no rotation. It was only necessary to flip it over horizontally, to make a celestial plan, as shown in Fig. 7c. After that, the trigrams could be simply removed to fit around a circle, just as they did it in making the first example. The result is shown in Fig. 1b.

Although the two Ho-t'u circles had been made in opposite ways, they were actually closely related. Each was merely the everted form of the other, as though one had been turned inside out. But that fact was probably not immediately recognized. The two circles not only looked somewhat different, each had been differently constructed. For their makers had each begun with a different ordering of the trigrams, and each had manipulated his set in a somewhat different way. Therefore, it is likely that the two circles were long considered as being entirely separate and distinct.

However, the yang circle would have seemed especially appropriate in the intellectual climate of the later Chou, as exemplified in the teachings of Confucius. For it stressed masculinity and seniority, and it emphasized respect for increasing age. Thus it is not surprising that this second circle was given preference and accepted as the standard version. Then an ascription to Wen Wang, revered co-founder of the Chou, gave it a spurious claim to great age, which put it in the same class as the circle ascribed to Fu Hsi.

When the first Wen Wang circle lost its privileged status, it no longer would have been subject to the taboos that protected a ritual circle employed for rites and divination; so it became available for secular purposes.

This could explain why all the early, openly-used trigram circles, found on artefacts dating from before the Sung dynasty, have been examples of the everted Wen Wang circle. As yet, none of these have been found depicting either the final Wen Wang circle or any form of the Fu Hsi circle. All the early examples involved the Eight Directions, using the trigrams either as designators of the compass points, or as signs indicating the directions on symbolic representations of the universe in microcosm.³⁹

We can assume that when a set of eight symbols was needed for this purpose, the Fu Hsi circle was so greatly revered for its antiquity that it could not be shown publicly at all, and the yang form of the Wen Wang circle was also taboo; but this yin form was out of favour, hence expendable.

The two forms of the Wen Wang circle can easily be distinguished. On the standard (yang) circle, the middle trigram on either side of the circle has a broken outer line, making this circle look open-sided. In contrast, the secondary (yin) circle has a solid outer line on each of the same two trigrams, so this circle appears closed.

39. The later history of the inverted Wen Wang circle, and several alternate forms of the two standard trigram circles, are discussed in S. Cammann, "The Eight Trigrams: Variants and Their Uses," pp. 302ff.

The Wen Wang circles differed greatly from the Fu Hsi trigram circle. Most obviously, in addition to the variations in placement of the trigrams, they lacked the emphatic yin-yang opposition that is so notable in the circle ascribed to Fu Hsi. For, although both Wen Wang circles did segregate the yin and the yang trigrams, the principal trigrams in each grouping held only subordinate positions on the same side of the circle.

The only obvious yin-yang contrast on these Wen Wang circles was the opposition between the *li* trigram at the top of each and *k'an* at the bottom. Both of these were usually considered secondary trigrams, yet they served to establish a central axis down the middle of each circle, giving a sense of order to the rather uneven arrangement of the trigrams.

A more explicit explanation for their placement is provided in the *Shuo-kua* appendix to the *I-ching*. This says that the *li* trigram [at the top] represented fire and the Sun — both considered as male and yang — though it called the trigram itself “second daughter.” It also says that the *k'an* trigram [at the bottom] stood for water and the Moon — both considered as female and yin — yet it called the trigram “second son.”⁴⁰

The old Chinese custom of designating the Sun “Great Yang” and the Moon “Great Yin” supports the first statement about each of these trigrams; but the second statements contradict the first ones. It seems highly unsuitable to associate fire and the Sun — both yang — with a trigram from the yin group; and it was equally unfitting to relate water and the Moon — both yin — to a trigram considered yang. How can one explain this inconsistency regarding the genders?

Apparently the author of the *Shuo-kua* appendix was basing his analysis of the trigrams on an assumption that a single line determined the class and gender of each trigram. But his confusion about the gender of these two significant trigrams makes it obvious that each of these trigrams must have once belonged in the early family system, used on the primitive trigram circle that evolved into the Fu Hsi circle. For each of them still had a symbolic meaning only suitable for the other sex, showing that its true gender must have formerly been indicated by two whole or broken lines, and not by a single one.

Evidently the original meaning of each of these trigrams was so vital that it had to be preserved; even though the changes in those trigrams' genders made the old meanings seem foolishly inappropriate.

We have seen that the Fu Hsi circle began as an ancient arrangement of trigrams based on the first family system, using two lines of a trigram to designate its status, and that its pattern continued on — with only minor changes in response to changing currents of thought — until finally it developed into the standard Fu Hsi circle, still in use. We have also seen that this circle, in the course of its early development, could have suggested two other family systems, both of which used single-line designators.

In contrast to that, the two Wen Wang circles originated with the third and second family systems, respectively. Did their composers borrow these systems from the ancient trigram circle, or did they just happen upon those while constructing each trigram set with a deliberate yin-yang ideology? We may never have a firm

40. These contradictory meanings for those two trigrams are given in the *Shuo-kua* appendix to the *I-ching*. See Legge, *Yi-king*, pp. 430–432.

answer; but it seems significant that both of the Wen Wang circles were constructed with methods that used single-line designations. For that shows they must have been made sometime after the early Fu Hsi circle. Therefore the scholars of Old China had ample precedent – descending from Antiquity – for referring to the standard Wen Wang circle as *Hou T'ien-t'u* or “Later Celestial Plan”.

Some Misconceptions about the Standard Trigram Circles

While investigating the relation between the Fu Hsi trigram circle and the Lo-shu, we have seen that a direct connection between this circle and that diagram seemed to be the only way to account for significant steps in the evolution of the Fu Hsi circle and for the final order of numbers on the Lo-shu. We also saw that the Lo-shu numbers continued to be associated with the Fu Hsi trigrams on geomancer's compass dials down into the 20th century.

Then, as we traced the stages in the evolution of the two Wen Wang circles, we found that the alterations in those must have been caused by making them conform with successive changes in the deployment of numbers on the Ho-t'u; for they, too, could not have come about in any other way. Yet, for many centuries, scholars in the East and the West have persisted in wrongly linking the Fu Hsi circle with the Ho-t'u, and in pairing the Wen Wang circle with the Lo-shu.⁴¹

The full development of the two standard trigram circles must have been accomplished quite early. Probably both were completed before the founding of the Ch'in Empire in 221 B.C. For by Han times the earlier association between the Fu Hsi circle and the Lo-shu – and that between the Wen Wang circle and the Ho-t'u – were no longer recognized.

For example, Cheng Hsüan¹ (A.D. 127–200), a Later Han philosopher who studied and commented upon earlier writings about yin-yang theory and the trigrams, firmly associated the Wen Wang circle with the Lo-shu, and his erroneous statements have misled scholars ever since.

Cheng revealed his misconception while describing the “Journey of T'ai-i” in a commentary on an earlier writing,⁴² and unfortunately his erroneous impression gained authority by being quoted (slightly condensed) in the History of the Later Han.⁴³

During the Ch'in dynasty – and probably earlier – then into the early Han, many Chinese believed that an exalted deity called T'ai-i⁴⁴ spent his time traveling

41. For examples, see Granet, *Pensée chinoise*, pp. 185–87, and Needham, *Science and Civ.*, vol. 4, pt. 1, p. 296.

42. Cheng Hsüan, *I-wei ch'ien-tso-tu*, pp. 30–31.

43. *Hou Han shu* 89.9.

44. The Chinese had several ways of writing the name T'ai-i,* and Western writers have called him “The Great Unity,” “The Great Unique,” “The Supreme One,” “Great Monad,” etc. Because of this lack of uniformity, it seems preferable just to keep the transliteration of his Chinese names – since all of them were pronounced the same. For aspects of his cult, see the *Ch'ien Han shu* 25 a. 23 ff. See also S. Cammann, “Magic Square of Three,” 60–66, 70–75.

around in the sky, visiting the Nine Halls (*Chiu Kung*).⁴⁵ The first hall was his own palace, known as the *Tzū-kung*,^k at the center of Heaven. The other eight were located out in the eight directions, and tradition said that the position of each was marked by one of the trigrams.

The legend of T'ai-i stated that he left his central palace to visit the first four halls; then he returned to the palace to rest, before leaving to visit the other four. His route must originally have been assumed to trace the pattern of the Celestial Lo-shu, which had given its numbers to the trigrams in the early Fu Hsi circle.

T'ai-i's course would have been quite smooth if he had traveled along the path that led from number to number on the early Celestial Lo-shu. Taking that, he could have visited the first four halls in an easy curve; then, after returning to rest at his palace in the center, he could have visited the other four in an equally placid reverse curve. The pattern of the Celestial Lo-shu is shown in Fig. 5b.

Traveling on the path of the final Lo-shu would have been a very different matter. After the exchange of two numbers had produced the final Lo-shu and had also compelled the exchange of two corresponding trigrams to make the final Fu Hsi circle, a route marked by either the numbers or the equivalent trigrams would have been highly erratic, requiring two long eccentric jogs.⁴⁶ (See Fig. 5, b and d.)

Thus, Cheng Hsüan made a double mistake in trying to apply the numbering of the final Lo-shu to the standard Wen Wang circle. He did not actually picture the latter; but when he described T'ai-i's journey on the route of the final Lo-shu he gave each successive stage the name of a trigram in the order shown on the standard Wen Wang circle as well as the compass point of each trigram upon that circle.⁴⁷

This is not to suggest that Cheng Hsuan was either stupid or perverse. Apparently he – or a previous writer whom he may have been quoting – had heard that there was some connection between the trigrams and the Lo-shu, but people in the Han were obliged to work with what was available to them. The Fu Hsi circle must have still been hidden as an object of occult lore, while the Wen Wang circle, in its everted form, was openly being used for special purposes.

Yet it was unfortunate that later Chinese authors and their modern successors in the West blindly accepted the traditional statements of scholars from an earlier time, and fully believed Cheng's account of the mythical journey of T'ai-i. Not only did they pass on his mistaken impression that the Wen Wang circle was associated with the Lo-shu square, they also went on to conclude from this that the Fu Hsi circle was connected with the Ho-t'u cross. Thus they misled their students and colleagues for many centuries.

Here I have deliberately referred to the two ancient traditional diagrams as "the square" and "the cross" in order to be precise regarding their identities. Because certain Chinese authors in the past created confusion by exchanging the names of

45. Tradition said that T'ai-i traveled around the sky in a chariot formed by the Big Dipper (Ursa Major). This concept is illustrated in a picture of his journey carved in stone at the Wu Liang Shrine, in the Han dynasty (247 A.D.), reproduced in Needham, *Science and Civ.*, vol. 3, fig. 90, p. 241.

46. The zigzag path formed by going from one number to the next on the final Lo-shu later created the pattern for a kind of Taoist dance called the "Paces of Yü" (*Yü pu*), and that pattern also became a powerful Taoist charm. See S. Cammann, "The Magic Square of Three," p. 79–80, text, and Fig. 7. Because this pattern is so erratic, in Modern Chinese *yü pu* has other, pejorative meanings, such as "drunken staggering".

47. Granet, *Pensée chinoise*, p. 187, pictures the route of T'ai-i on the final Lo-shu in relation to the Wen Wang trigram circle – represented by the names of its trigrams – thus illustrating the double mistake of Cheng Hsuan.

the two diagrams,⁴⁸ and at least one Western scholar has further complicated the situation by wrongly describing the Ho-t'u as a magic square.⁴⁹

The false impression that the Fu Hsi circle had been associated with the Ho-t'u cross may have been partly due to that circle's four-part symmetry. As its four principal trigrams were located at the cardinal points, they might have suggested a cross-shaped pattern, reminding people of the Ho-t'u. However, the probable evolution of the two basic trigram circles – reconstructed above – has shown that the Fu Hsi circle was inextricably involved with the Lo-shu, and that any idea of an ancient connection between this circle and the Ho-t'u cross is untenable.

48. Chinese scholarly tradition says that Liu Mu² (1011–1064) exchanged the names of the Lo-shu and the Ho-t'u, and that a century later Chu Hsi changed them back. See Fung/Bodde, *Chinese Philosophy*, vol. 2, pp. 101 and 146. However, that oversimplifies a continuing confusion. For example, the Taoist Canon (*Tao Tsang*), among its illustrations, repeatedly pictures the Lo-shu under the name Ho-t'u, and vice versa.

49. Though the Chinese since the Sung dynasty have shown the Ho-t'u in a square frame, this diagram was never a magic square in any sense. Yet Needham miscalled it a magic square in *Science and Civ.*, vol. 2, pp. 393, 442, and vol. 3, pp. 56–58.

Conclusion

We have seen that the two familiar trigram circles, traditionally ascribed to Fu Hsi and to Wen Wang, evolved so differently that it seems reasonable to suppose that each developed within a separate group or school of ancient sages. The respective evolutions of the two circles were inevitably influenced by certain common features in the intellectual climate of Ancient China. These were: respect for the Lo-shu and the Ho-t'u; pervading yin-yang concepts, at a time when patriarchal power was displacing the last remnants of an earlier, matriarchal society; several "family systems" used for classifying the trigrams; and, lastly, reverence for the Sky or Heaven — with which both circles were associated, as is shown by their alternative names of *Hsien T'ien-t'u* and *Hou T'ien-t'u*. Yet the makers of the two circles responded to these influences in different ways, because of their separate modes of thinking. These differences from contrary approaches were later ignored, and the changes were forgotten. Therefore it has been necessary to reconstruct the history of the two circles by carefully analyzing their existing forms, then working back from there to find their prototypes.

A number of new findings resulting from this research help to explain some long outstanding problems regarding the early development of the trigrams and their associated symbols in relation to their historic times. Nevertheless, questions still remain concerning more precise dates for the successive stages in the early development of the trigram circles. Those are very difficult to answer.

Despite the lack of more precise textual clues, due to the esoteric milieu in which the changes took place, further details will doubtless emerge in the course of future archaeological excavations. In particular, we should expect more information from the manuscripts and objects of China's early feudal states, buried with the First Ch'in Emperor, when his tomb is eventually opened.

Chinese Characters

- a 八卦
- b 洛書
- c 河圖
- d 說卦
- e 先天圖
- f 後天圖
- g 宋玉
- h 楚
- i 九宮
- j 鄭玄
- k 紫宮
- l 張亞初
- m 劉雨
- n 天圖地方
- o 明堂
- p 大戴禮記
- q 蓋天
- r 大言賦
- s 北堂書鈔
- t 羊州
- u 李尤， 小車銘
- v 式
- w 易緯乾鑿度
- x 太一， 太乙， 泰一
- y 禹步
- z 劉牧

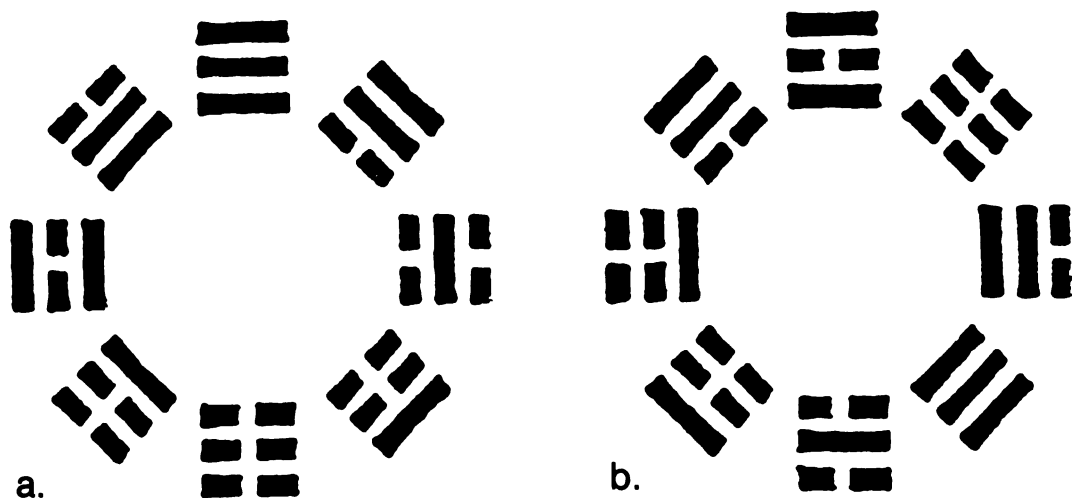


Fig. 1. The two familiar trigram circles.
a. The Fu Hsi circle. b. The Wen Wang circle.

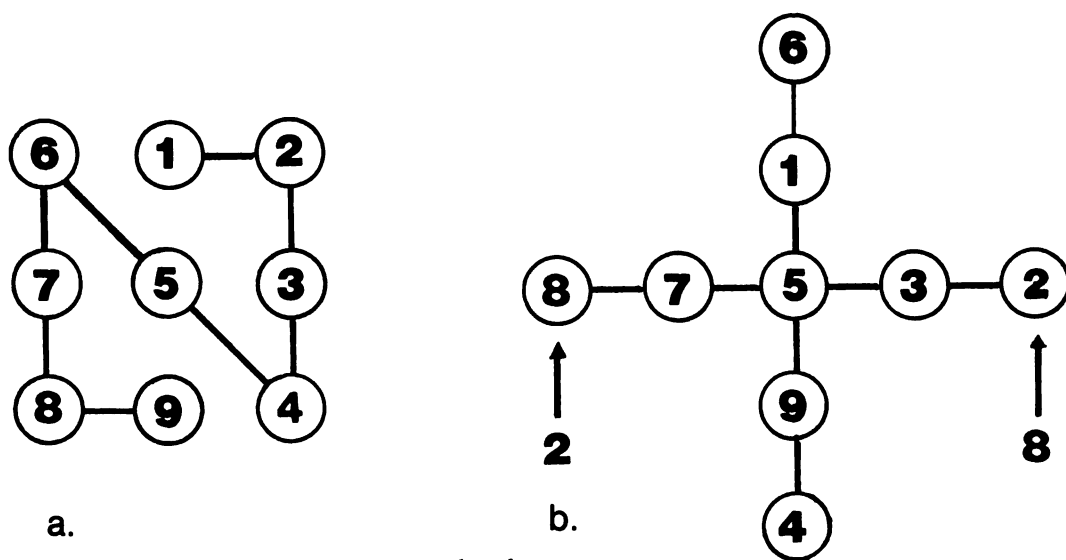


Fig. 2. Two important diagrams in Early China.
a. Early Lo-shu. b. Primitive Ho-t'u.

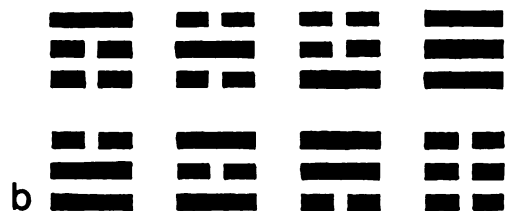
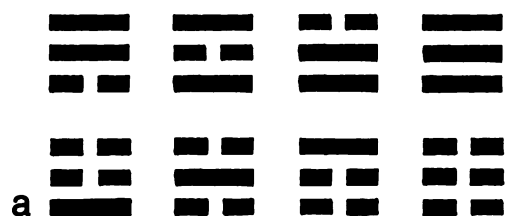


Fig. 3. Three "family systems" used for classifying trigrams.
 a. The first, used in making the Fu Hsi trigram circle.
 b. The second, mentioned in an appendix to the I-ching.
 c. The third, used for making trigrams and hexagrams.

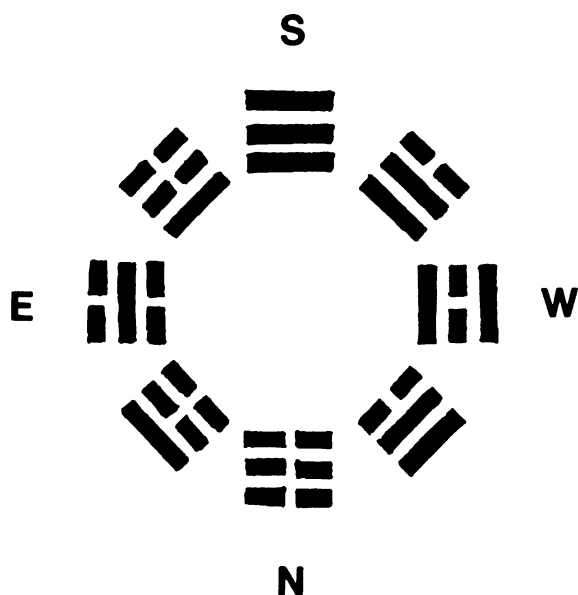
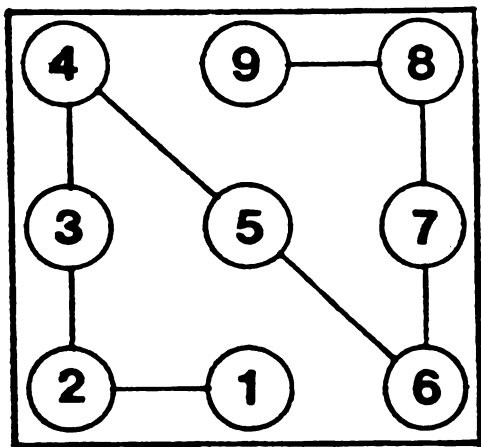
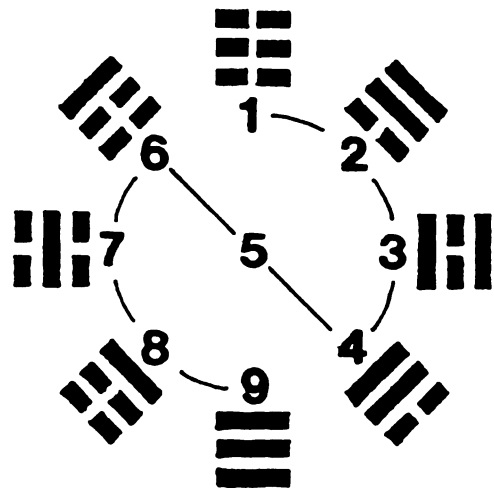


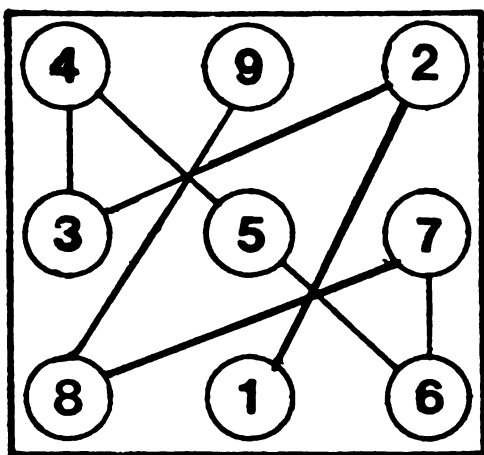
Fig. 4. Reconstruction of an early trigram circle, prototype for the Fu Hsi circle.



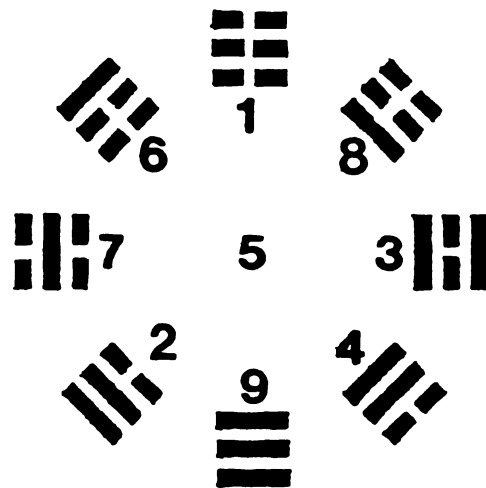
a.



b.



c.



d.

Fig. 5. Interrelation between the Lo-shu and the Fu Hsi circle

- a. The terrestrial Lo-shu (early form).
- b. The early Fu Hsi circle (inverted to be a sky plan), surrounding the early celestial Lo-shu.
- c. The later Earthly Lo-shu, final form of the Lo-shu.
- d. The later Fu Hsi circle, surrounding the later celestial Lo-shu. This circle was later rotated to become the standard Fu Hsi circle (shown in fig. 1a).

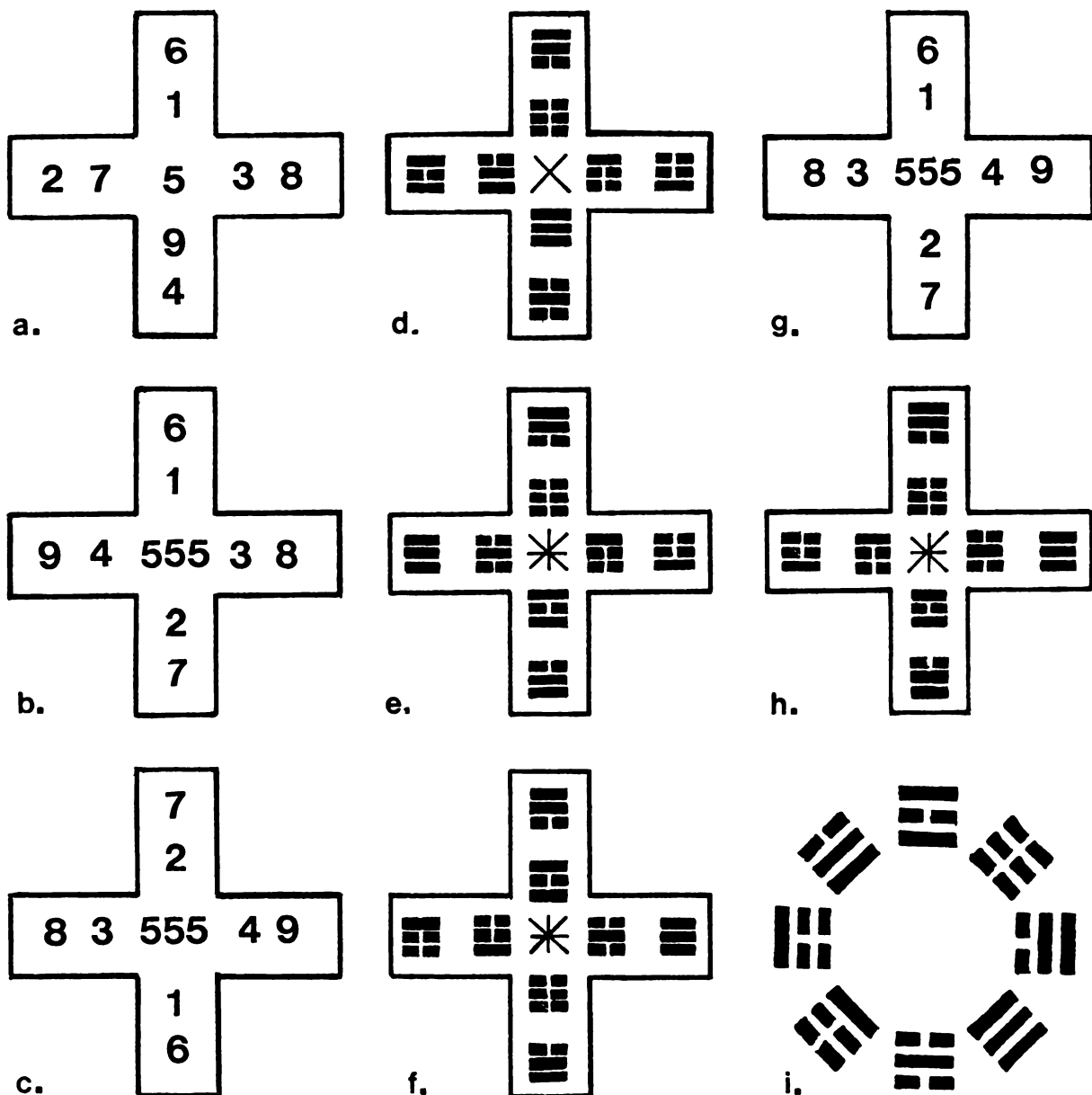


Fig. 6. Development of the Ho-t'u and the first Wen Wang circle.

a to c. Development of the Ho-t'u. a. Early form. B. Revised form. c. Same rotated to make final Ho-t'u.

d to f. The development of the trigram cross, parallel to the development of the numbered cross.

g. A possible celestial Ho-t'u. h. The celestial trigram cross. i. The first Wen Wang trigram circle.

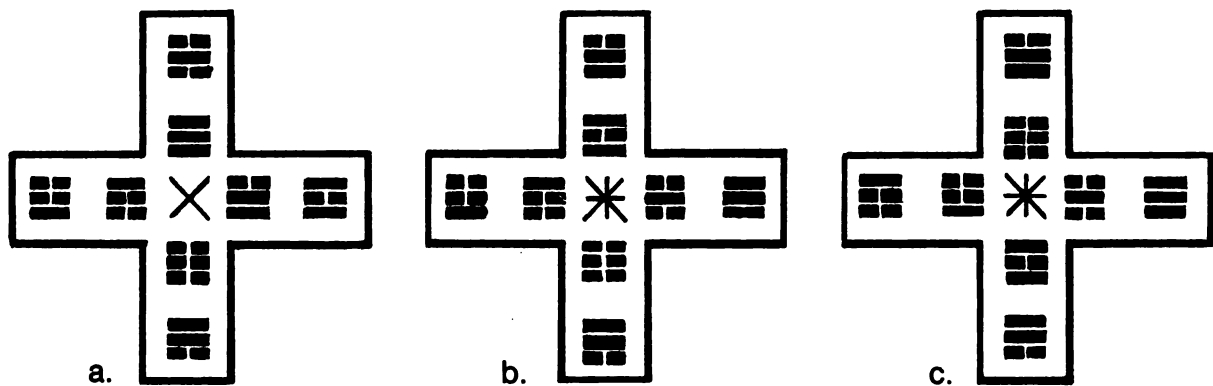


Fig. 7. The development of the second Wen Wang circle.
 Three trigram crosses leading to the standard Wen Wang circle
 (shown in fig. 1b).

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